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ABSTRACT

To establish a comprehensive national database on postsecondary student financial aid, the National Center for Education Statistics conducted the 1987 National Postsecondary Student Aid Study (NPSAS). Objectives were to: (1) determine the costs of postsecondary education for aided and non-aided students; (2) evaluate how students finance their postsecondary education and the role financial aid plays in meeting these costs; (3) assess how families cope with postsecondary education costs; and (4) show the total education debt acquired by students. Information was also collected on characteristics of the participating students, parents, and institutions. This methodology report covers the general scope and design of the study, with emphasis on the in-school sample and sampling design. The sample design included four stages of sampling--area sampling; institution sampling; student sampling; and parent sampling. The 59,886 students who were eligible for participation in the NPSAS were attending eligible institutions on or about October 15, 1986. Project management is discussed, with a description of data collection and update. Chapters are devoted to the student survey and the parent survey. File creation and data analysis are described, and a chapter reviews weighting and variance estimation for the survey data. The size and complexity of the study required methodological innovations, some of which are the basis for recommendations for future studies growing from the experience of the NPSAS. Eight figures, 21 tables, and 9 exhibits supplement the report. Four appendixes contain: NPSAS data collection instruments; NPSAS measurement task reports; NPSAS student survey food and housing expenditure flags; and imputation for records abstract file. (SLD)

NATIONAL CENTER FOR EDUCATION STATISTICS

Methodology Report March 1990

# Methodology Report for the National Postsecondary Student Aid Study, 1987

## Contractor Report

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"The purpose of the Center shall be to collect, and analyze, and disseminate statistics and other data related to education in the United States and in other nations."—Section 406(b) of the General Education Provisions Act, as amended (20 U.S.C. 1221e–1).

March 1990

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Additionally, we would like to thank NCES staff members Gerald S. Malitz and Sandra Garcia, Co-Project Officers, and Roslyn Korb, Chief, Special Studies and Analysis Branch.

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## HIGHLIGHTS

- The 1987 National Postsecondary Student Aid Study (NPSAS) provides the first comprehensive and nationally representative student-level database on postsecondary financial aid. NPSAS will be conducted on a 3-year cycle, with the next study to cover academic year 1989-90.

- Two major design features define and distinguish NPSAS from earlier financial aid studies:

  - A broad definition of student and institutional eligibility is used for inclusion in the study. Sampled students include aided and unaided full- and part-time students enrolled at all program levels (undergraduate, graduate, and first-professional).

    Postsecondary institutions are broadly defined to include public and private nonprofit and for-profit institutions, including Ph.D. granting institutions, and other 4-year, 2-year, and less-than-2-year institutions.

  - Data are collected from different sources (students, parents, and postsecondary institutional records) and then linked together to provide as complete a picture as possible of how students pay for their postsecondary education.

- 1987 NPSAS surveyed an in-school sample of 60,000 students enrolled at 1,074 postsecondary institutions as of October 15, 1986, along with 24,000 parents of these students.

- The in-school sample design involved three stages of sampling: area sampling, institution sampling, and student sampling. A subsample of the student sample was used for the parent survey.

- Data were collected using multiple survey instruments: institutional forms for basic student, parent, and financial records data; detailed student and parent survey questionnaires; and an institutional financial records update form.

- The institutional records data were collected as needed by 170 field data collectors spread across eight regions of the United States. These field personnel also drew the student sample at institutions that requested on-site sample selection, which occurred in about 22 percent of the cases.

- In addition to the data items collected, a number of derived variables (which primarily involved merging existing variables) were produced for analytic use and to permit data users to replicate variables in published reports.

- Data were edited by a Computer Assisted Coding and Editing System (CACE). Similar or related data appearing on more than one NPSAS component were checked for interform consistency. Data were imputed for selected variables.

- Weighted response rates for the in-school survey were: institutions, 94.6 percent; the student survey, 71.1 percent, and the parent survey, 61.6 percent.

# 1. SCOPE AND OBJECTIVES

The need for a comprehensive national database on postsecondary student financial aid prompted the U.S. Department of Education to conduct the 1987 National Postsecondary Student Aid Study (1987 NPSAS). The National Center for Education Statistics (NCES) in the Office of Educational Research and Improvement designed and implemented 1987 NPSAS with assistance from other Federal offices, various associations, and the research community.

Dramatic growth of Federal financial aid programs in the past three decades and resulting concern about the efficiency and effectiveness of Federal student aid programs have been the primary impetus behind 1987 NPSAS. Policymakers needed answers to fundamental questions about student aid including the status and condition of student participation, the impact of financial aid programs on student enrollment and progress, and the impact of changes in financial aid policies on students and program costs.

Although earlier studies of student financial aid attempted to answer these questions, their data were problematic and incomplete. These studies often excluded non-aided students, independent students, financial awards to students from private sources, or students attending non-collegiate schools. Another major limitation of these studies was that data was often obtained from only a single source or concerning a single financial aid program. Complete information on dependent students, for example, can only be obtained from a combination of student, parental, and institutional sources. Cross-program participation can only be measured with data on multiple sources of aid at the individual student level. NCES conceived 1987 NPSAS to address these methodological problems and to provide the first comprehensive and nationally representative student-level database on postsecondary financial aid.

The analytic objectives of the 1987 National Postsecondary Student Aid Study are, in broad outline, to determine the costs of postsecondary education for both aided and non-aided students, to evaluate how students finance their postsecondary education and the role financial aid plays in meeting these costs, to assess how families cope with postsecondary education costs, and to show the total education debt acquired by students.

NPSAS was designed as a recurring study. Data collection and analysis will repeat in three year cycles allowing the cost of postsecondary education, the impact of financial aid on cost, and other research questions to be tracked over time. The second NPSAS cycle (1990 NPSAS) will collect data on the 1989-1990 academic year and will serve as the baseline for longitudinal studies.

# 2. OVERALL DESIGN

## 2.1 Design Features

Two major design features of the 1987 National Postsecondary Student Aid Study alleviate problems encountered in previous studies on postsecondary student financial aid.

One feature is that 1987 NPSAS uses a broad definition of eligibility for inclusion in the study. Sampled students included aided and non-aided, full-time, and part-time students. They attended postsecondary institutions, also broadly defined, such as public and private schools, non-profit and proprietary schools, two-year and four-year schools, Ph.D. granting institutions, and schools with only occupational programs of less than two years' duration. Students were also enrolled in all levels of programs such as undergraduate, graduate, and first professional programs.

The second major design feature is that 1987 NPSAS collected data from different sources and linked them together to provide as complete a picture as possible of how students pay for their postsecondary education. Data came from student, parents, and postsecondary institutional records. By linking data from several sources, 1987 NPSAS addresses questions that are only answered reliably with data from different sources. By using several data sources, 1987 NPSAS could also provide information on groups that had been systematically excluded from previous studies, such as unaided students. The 1987 National Postsecondary Student Aid Study thereby allows better examination of the level of need among students and the sources of their educational financing.

At the core of the 1987 NPSAS is a detailed set of questions concerning information on educational expenses--the source, kind and amount of financial aid received, and other financial resources of the student or family (earnings, savings, other assets). Information was sought not only on expected educational expenses and financial aid, but also on actual sources and amounts of educational expenses and the resources used to meet them.

In addition to the basic information on educational financing, related information was collected on level of study, credit hours, grade point average, type of institution, demographics, attitudes and choices and other student and parent characteristics.

## 2.2 1987 NPSAS In-School Samples

The 1987 NPSAS in-school student sample includes students in all types of postsecondary schools. The entire spectrum of postsecondary institutions is included since students in all type and control of postsecondary institutions are potentially eligible for Federal financial aid. This includes public and private non-profit and profit-making institutions, two- and four-year schools, and schools with only occupational programs of less than two years in duration. Students attending schools ineligible to dispense Federal financial aid were also eligible for the study. Students of all academic levels were eligible, such as undergraduate, graduate, and first-professional students. The 1987 NPSAS in-school sample also includes both students who did, and who did not, receive student financial aid, thus allowing comparisons of the costs and financing of education between these groups.

## 2.3 Data Collection

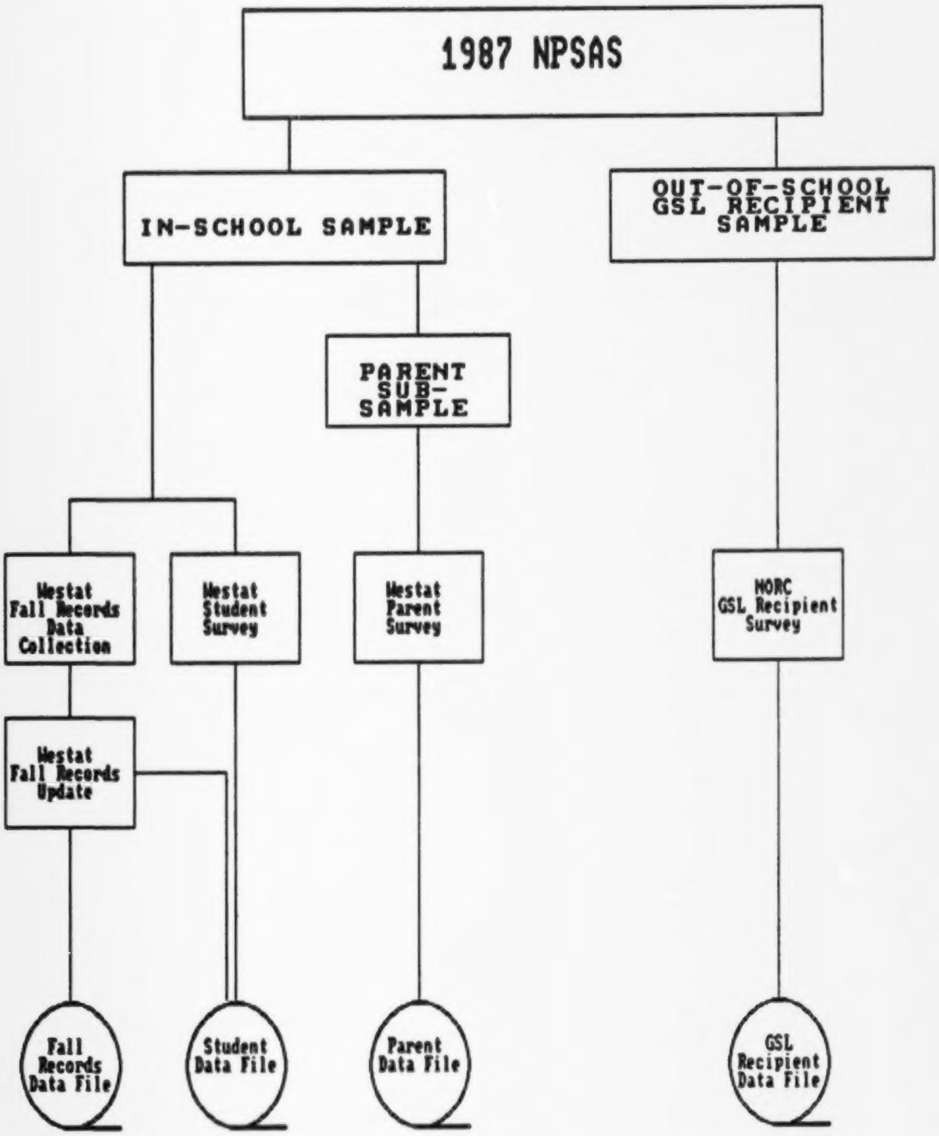
Four data collection activities were undertaken for the 1987 NPSAS in-school sample: fall postsecondary institution records data collection, a student survey, a parent survey, and an institution records update. Figure 2-1 shows the relation of these data collection efforts in 1987 NPSAS.

### Fall Records

In late 1986 and early 1987, data were collected from school registration and financial aid office records. Postsecondary institutions are the best source for federal, state, and institutional financial aid awards. Because aided students must provide detailed and often verified information on family financial characteristics, institutions are also the best source on family finances of aided students. Other data collected from institutions included enrollment information (e.g. field of study, full-time or part-time attendance status, student performance) and student demographic characteristics. A critical component of institution records data collection was the

Figure 2-1

NPSAS DESIGN SCHEME


1987 NPSAS
IN-SCHOOL SAMPLE
OUT-OF-SCHOOL GSL RECIPIENT SAMPLE
PARENT SUB-SAMPLE
Westat Fall Records Data Collection
Westat Student Survey
Westat Parent Survey
NORC GSL Recipient Survey
Westat Fall Records Update
Fall Records Data File
Student Data File
Parent Data File
GSL Recipient Data File

collection of student and parent addresses. These addresses were necessary for the student and parent surveys.

### Student Survey

In the spring of 1987 the in-school sample students were surveyed by mail and telephone in order to collect self-reported data on their education, school costs, earnings, sources of funds, decisions on school financing, and knowledge of financial aid programs. This survey was particularly critical for information on the financial characteristics of unaided, independent students since these students had no institutional financial aid records.

### Parent Survey

A subsample of students was selected for the purpose of surveying their parents in order to collect parent-reported data on the costs and financing of postsecondary education and family financial, educational, and employment characteristics. Parents of students in postsecondary education institutions frequently play an important role in the education-related activities of their children, including financial decisions. A major objective of the parent survey was to collect this information since school financial aid records do not include information on the family finances of unaided, dependent students.

Thus major objectives of the parent survey were to be able to supplement family financial data on the student institutional records and to be able to produce estimates of the number of students by characteristics of their family. It is important to note that the target population for NPSAS is students, not parents, meaning that the parent survey provides supplemental data concerning family characteristics of students but is not a national probability sample of parents or households with college students.

### Fall Records Update

In the summer and fall of 1987, schools were provided a computer generated copy of selected financial aid records data including all financial aid award amounts, collected earlier in the academic year (see "Fall Records" above). Schools were asked to update and/or correct these data to accurately reflect financial aid award amounts for the entire 1986-87 academic year for each student.

## 2.4 Final Data Files

Data from the in-school sample is available from the National Center for Education Statistics in three files: The 1987 NPSAS Student Survey Data File containing student survey responses and updated financial aid records data for all students responding to the 1987 NPSAS student survey; the 1987 NPSAS Updated Financial Aid Records Data File for all students in the 1987 NPSAS in-school student sample; and the 1987 NPSAS Parent Survey Supplement Data File has parents survey responses for all parent responding to the 1987 NPSAS Parent Survey.

# 3. 1987 NPSAS IN-SCHOOL SAMPLE

## 3.1 Overall Sample Design

The sample design for the 1987 NPSAS in-school sample involved three stages of sampling--area sampling, institution sampling, and student sampling. A subsample of the in-school sample of students was used for the parent survey.

Area sampling was used to reduce field data collection costs. Because of the lack of a complete national listing of all postsecondary students for a sample frame, it was necessary to sample students at institutions. Within three-stage design, students for the 1987 NPSAS in-school sample were selected from sampled institutions that were located within sampled geographic clusters (areas).

The overall purposes of the 1987 NPSAS in-school sample design were to adequately represent students in all sectors of postsecondary education, to minimize the variability of the estimates of characteristics of the students for selected domains, and to allow economical field data collection and data processing.

## 3.2 Area Sampling

Area sampling has the potential of increasing the variability of national estimates. The impact of this was minimized by stratification, assigning differential probabilities of selection, and controlling the number and definition of clusters.

The rationale behind area sampling was to reduce field data collection travel costs to sampled institutions and to students and parents for non-respondent followup interviews. The 1985-1986 Integrated Postsecondary Education Data System (IPEDS) postsecondary universe file, however, was not available for use as a sample frame as planned. Area sampling was necessary to ensure coverage of all institutional segments through the development of a listing of all postsecondary institutions within sampled areas.

Because of the use of area sampling, it was not necessary to have a complete national postsecondary universe file. However, a national file was needed for drawing the very largest schools across the country and for assigning measures of size to areas on the area sample frame. For this purpose, a preliminary universe file was created by combining and unduplicating the 1984-1985 Higher Education General Information Survey (HEGIS) XIX Opening Fall Enrollment File and the 1983-1984 Pell/Campus-Based Institution file. These files provided a national list of all accredited and Pell-eligible postsecondary institutions with information on their type, control, enrollment, and address. Institutions were stratified by type, and control and any institution which exceeded a cut off enrollment in its type was selected with certainty. The cut-off point for certainty institutions was set equal to one-half of the sampling interval for the stratum. These factors were based on the initial estimates of the number of institutions needed in each stratum (type and control) and the size (enrollment of that stratum). A total of 162 institutions were selected with certainty in this step and were removed from the preliminary institution file before area sampling. The preliminary institution universe file without certainty schools contained 6,387 schools.

The next step in the process was to identify all three-digit zip code areas in all fifty States and the District of Columbia for use as the area sample clusters. A minimum size of seven postsecondary institutions and 1,000 students for each cluster was defined. If a three digit zip code area did not meet this minimum size requirement then it was clustered with other adjacent three-digit zip code areas to form a Primary Sampling Unit (PSU). Clusters did not cross state boundaries. A universe of 361 PSUs was created in this manner.

Some of the Primary Sampling Units were very large in counts of institutions and/or enrollment. The next step of area sampling was to select the largest PSUs with certainty. A PSU was selected with certainty if the total enrollment in the PSU exceeded one-half the sampling interval. The preliminary universe file was used to determine these conditions. A total sample of 120 PSUs was desired. Of the 361 PSUs in the universe, 50 were large enough to be included with certainty.

A sample of 70 Primary Sampling Units from the remaining 311 noncertainty PSUs was necessary in order to provide the desired 120 sample PSUs.. Each PSU was assigned a measure of size that depended upon the total number of students in the PSU and the number of students in four different types of institutions. A function of these numbers was used as the measure of size for each PSU. This measure of size was used instead of total enrollment to ensure adequate representation of smaller specialized institutions.

The next step was to stratify the PSUs. The primary stratification variable at this stage of sampling was the state in which the PSU was located. The strata were designed so that each stratum had roughly the same total size, where total size was equal to the sum of the measures of size of all the PSUs in the stratum. If the PSUs in a state were not large enough to constitute an entire stratum (or were so large that they were greater than one stratum but less than two), then PSUs from different states were placed in the same stratum based upon indices reflecting the nature of the level of state aid to postsecondary education. In all, 35 strata were formed, each roughly of equal size.

The PSUs were then assigned a probability of selection proportional to their measure of size. The PSUs were sorted in a stratum by state and within state by their measure of sizes. Two PSUs were sampled systematically from each stratum with probability proportional to their measure of size.

The final area sample consisted of 120 PSUs. Fifty PSUs were selected with certainty and 70 PSUs were selected with probability proportional to their measure of size. With the exception of four states, each state contained at least one PSU. Each PSU consists of one or more contiguous three-digit zip code areas.

The probability of selecting the PSU is represented as $P_{hi}$, where h is the cluster stratum ($h = 1,...,35$) and i is the PSU within stratum h.

## 3.3 Institution Sampling

### 3.3.1 Institution Eligibility

To be eligible for inclusion in the in-school component of NPSAS, an institution must have satisfied all of the following conditions in the fall of 1986:

- Offered an education program designed for persons who have completed secondary education;
- Offered an academically, occupationally or vocationally oriented course of study;
- Offered access to persons other than those employed by the institution;
- Offered more than just correspondence courses;
- Offered at least one program lasting three months or longer; and
- Was located in the 50 states or the District of Columbia.

Under these criteria, public, private non-profit, and private for-profit institutions, regardless of their accreditation status, were eligible. Institutions were not eligible if they only served secondary students, or provided only avocational, recreational, or remedial courses, offered only in-house business courses or seminars of less than three months duration (such as driver training schools, real estate courses, and tax preparation classes), or offered only correspondence courses.

For the purposes of 1987 NPSAS "institution" was defined at as low a level as possible. An institution was any *campus* that maintained independent and separate registrar records. In this way, the ambiguities of applying other definitions of "institution" to large state university systems or institutions with "branch" campuses were avoided.

### 3.3.2 Institution Frame Building

The 1985-1986 IPEDS postsecondary institution universe file was the proposed institution sample frame. Because this file was not available and no other postsecondary universe file covering all types of institutions was available, it was necessary to create a sample frame as part of the sampling task. The complete list of institutions in the sample areas was essential to eliminate undercoverage bias in NPSAS estimates. This activity took place mostly during July and August 1986.

Following the area sample selection, intensive frame building efforts went into creating a frame of all postsecondary institutions within each of the 120 sampled PSUs. This frame was created by combining and unduplicating lists of schools from ten different sources.

### 3.3.2.1 Source Files and Lists

Sources for institution frame development consisted of seven computer files and three hard-copy directories. Sources were chosen to encompass all types of eligible postsecondary schools. The following gives a brief description of each file:

- **1987 NPSAS Preliminary Universe File** (computer file) - created at Westat by combining and unduplicating two Department of Education files--the 1984-1985 Higher Education General Information Survey (HEGIS) XIX Opening Fall Enrollment File and the 1983-1984 Pell/Campus-Based Institution File.
- **1985-1986 Integrated Postsecondary Data System (IPEDS) IC2 File** (computer file) - Department of Education Institutional Characteristics file for public and private non-profit institutions with a highest degree offering of less than a baccalaureate but having a program of at least two years.
- **1985-1986 Integrated Postsecondary Data System (IPEDS) IC3 File** (computer file) - Department of Education Institutional Characteristics file for private for-profit institutions with a highest degree offering of less than a baccalaureate but having a program of at least two years.
- **1985-1986 Higher Education General Information Survey (HEGIS) File** (computer file) - Department of Education file in general consisting of accredited public, private non-profit, and proprietary institutions that have programs of at least two years and public institutions that only have programs of less than two years.
- **1983-1984 Guaranteed Student Loan (GSL) Institution File** (computer file) - Department of Education file of institutions eligible to receive GSL disbursements.
- **1986-1987 Pell Institution File** (computer file) - Department of Education file of Pell eligible institutions.

- **1986 National Business Listing File** (computer file) - Computer file of businesses listed under "education" in the National Business Listing.
- **1986 Association of Independent Colleges and Schools (AICS) Directory** (hard-copy list) - July 16, 1986 computer generated lists of main and branch campuses from AICS.
- **1986 National Association of Trade and Technical Schools Directory** (NATS) (hard-copy list) - July 30, 1986 Company Master Profile
- **1986-1987 Directory of Accredited Cosmetology Schools** (hard-copy list) - Directory published by the National Accrediting Commission of Cosmetology Arts and Sciences (NACCAS).

### 3.3.2.2 Unduplication

A single file of 20,290 schools was created by extracting and reformatting selected information from each of seven computer files. File information included school name, address, and, if available, type, control, and enrollment. Because there was no school identifier common to all schools on computer file, it was necessary to unduplicate a combined file using trained staff. Each record on the file was matched to its appropriate PSU according to the first three digits of its zip code. Only four records on the file did not have a zip code and these we discarded. All records not corresponding to sampled PSUs were dropped.

Files for the 120 PSUs were loaded onto 13 microcomputers where specially written software allowed staff to view the records and place a status code on each record. The final objective was to select one record to represent each unique school and to mark all other records for that school as duplicates.

Staff unduplicated the file by sorts on both institution name, street address, city, and zip code. Due to variations in names, spellings, addresses, location and organization of multiple campuses, and conflicting information on records from different sources, the unduplication process involved an ongoing problem resolution process that included telephoning schools.

### 3.3.2.3 Directory Augmentation

After the institution sample frame was substantially unduplicated, the sample frame was augmented manually with a small number of institutions from the AICS, NATS, and NACCAS directories. The AICS, NATS, and NACCAS lists were not in machine readable form. Therefore it was not possible to include them in the computer-assisted unduplication process described above. Instead, following that process, trained staff identified all schools within the 120 sample PSUs on these lists and added any schools not appearing in the sample frame to it. The augmentation yielded 192 schools, which after further unduplication were reduced to 145.

### 3.3.2.4 Establishing type, control, enrollment, and Address

One of the major activities in the frame creation and unduplication process was to determine type, control, recent enrollment, and address for each school. Accurate type, control, and enrollment were essential for proper stratification in subsequent sampling stages. Correct address was necessary for identifying unique campuses for sampling and establishing correct mailing address. Because such data were not necessarily present on all records, it was often necessary to transfer information from one record to another in order to create a single representative record for a school. This was done by identifying the record that was judged to be the "best source" of information, and then transferring additional data onto this record where necessary. The "best source" of information in order of reliability from most to least reliable was established as follows:

1985-86 Hegis File
1986-87 Pell File
NPSAS Preliminary Universe File
1985-86 IPEDS IC2/IC3 File
1983-84 GSL Institution File
1986 NBL File

In a large number of cases, the type and control reported on one source did not match that reported on records from other sources. Several files used a different classification scheme for type from our own. Addresses also varied considerably. Therefore, during the last stage of frame building, over 5,000 updates were made to the unduplicated and augmented sample frame in order to identify correct address and to change, correct, or impute type, control, or enrollment variables.

### 3.3.2.5 The Institution Sample Frame

Tables 3-1 shows the results of the duplication and augmentation processes by "best source". Column 1 indicates the institution sample frame with duplicates including schools added to the frame from directory augmentation. In addition, it shows that 57 schools were added during the unduplication process from other sources. "Other sources" includes schools added from searching some miscellaneous directories and some schools added as a result of information obtained during telephone conversations with schools.

Column 2 shows the sample with duplicates removed. A total of 7,814 institutions were identified in the 120 sample PSUs. The unduplicated computer source files contributed 7,621 schools, the directory augmentation (unduplicated) contributed 145 schools, and 48 came from other sources.

Columns 3 and 4 show the source files and sample frames contributing to the institution sample and to the count of institutions participating in 1987 NPSAS. Tables 3-2 and 3-3 expand upon Table 3-1 (columns 2 and 3) giving institution type and control. The type and control values here are final NPSAS values determined from the frame and by additional checking with institutions during the data collection and weighting activities.

In interpreting these tables it is important to remember that the best source for a school is often not the only source of data for a school, and in some cases, the designation of a best source is arbitrary, e.g., when four sources contributed data. It is also important to be aware that the figures exclude certainty institutions and New York Augmentation institutions.

### 3.3.3 Institution Selection

Institution selection began with the selection of 162 initial certainty schools during area sampling (see section 3.2). These institutions are in the institution sample with probability

Table 3-1. Best source for NPSAS institutions contained in the 120 NPSAS sample PSUs and in the NPSAS institution sample (excluding certainty institutions and New York augmentation institutions)

| Source | Institution frame within 120 NPSAS sample PSUs | | Institution sample | |
|---|---|---|---|---|
| | (1) With duplicates | (2) Without duplicates | (3) Initial sample | (4) Participating schools |
| NPSAS preliminary universe file | 3,211 | 1,062 | 231 | 192 |
| 1985-86 IPEDS IC2 file | 1,254 | 366 | 33 | 21 |
| 1985-86 IPEDS IC3 file | 4,176 | 2,605 | 132 | 71 |
| 1985-86 HEGIS XX file | 1,608 | 1,270 | 448 | 410 |
| 1983-84 GSL institution file | 2,380 | 651 | 78 | 61 |
| 1986-87 Pell institution file | 3,982 | 703 | 157 | 105 |
| 1986 NBL ("yellow pages") file | 3,679 | 964 | 50 | 29 |
| 1986 AICS (Association of Independent Colleges and Schools) list | 76 | 65 | 1 | 1 |
| 1986 NATS (National Association of Trade and Technical Schools) list | 62 | 44 | 1 | 1 |
| 1986 NACCAS list (National Accrediting Commission of Cosmetology Arts and Sciences) | 54 | 36 | 0 | 0 |
| Other sources (including telephone) | 57 | 48 | 0 | 0 |
| Total | 20,539 | 7,814 | 1,131 | 891 |

Table 3-2. Best source by type and control, NPSAS unduplicated institution frame (excluding certainties and New York augmentation)

| | | Best source | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Type | Control | N | ACS N | AIC N | ATT N | BAS N | CCA N | SSL N | HEG N | IC2 N | IC3 N | NBL N | PEL N | TEL N | TOTAL N |
| < 2 yr | Public | - | - | - | - | 13 | - | 25 | - | 15 | 4 | 2 | 20 | - | 79 |
| | Private | - | - | - | - | 22 | - | 150 | 4 | 125 | 37 | 22 | 68 | 3 | 431 |
| | Proprietary | 41 | 1 | 64 | 44 | 692 | 36 | 320 | 3 | 159 | 2359 | 877 | 237 | 1 | 4834 |
| 2-3 yr | Public | 2 | - | - | - | 67 | - | 41 | 304 | 22 | 13 | 8 | 76 | 1 | 534 |
| | Private | - | - | - | - | 81 | - | 56 | 152 | 31 | 8 | 5 | 90 | - | 423 |
| | Proprietary | - | - | - | - | 97 | - | 33 | 9 | 9 | 179 | 13 | 86 | - | 426 |
| 4 yr | Public | - | - | - | - | 17 | - | 3 | 113 | - | - | 5 | 40 | - | 178 |
| | Private | - | - | - | - | 70 | - | 14 | 505 | 3 | 1 | 29 | 69 | - | 691 |
| | Proprietary | - | - | - | - | 3 | - | 9 | 4 | 2 | 4 | 3 | 17 | - | 42 |
| PHD | Public | - | - | - | - | - | - | - | 57 | - | - | - | - | - | 57 |
| | Private | - | - | - | - | - | - | - | 119 | - | - | - | - | - | 119 |
| | Proprietary | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL | | 43 | 1 | 64 | 44 | 1062 | 36 | 651 | 1270 | 366 | 2605 | 964 | 703 | 5 | 7814 |

Table 3-3. Best source by type and control, NPSAS sample schools (excluding certainties and New York augmentation)

| Type | Control | ALL | Best source | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AIC | ATT | BAS | GSL | HEG | IC2 | IC3 | NBL | PEL |
| < 2 yr | Public | 72 | - | - | 15 | 18 | - | 10 | - | 3 | 26 |
| | Private | 44 | - | - | 8 | 8 | 1 | 4 | 9 | 2 | 12 |
| | Proprietary | 342 | 1 | - | 136 | 26 | 5 | 3 | 111 | 26 | 34 |
| 2-3 yr | Public | 176 | - | - | 11 | 10 | 114 | 6 | - | 3 | 32 |
| | Private | 64 | - | - | 7 | 9 | 22 | 8 | 1 | 2 | 15 |
| | Proprietary | 85 | - | 1 | 28 | 4 | 29 | - | 11 | 1 | 11 |
| 4 yr | Public | 95 | - | - | 5 | - | 77 | - | - | 4 | 9 |
| | Private | 116 | - | - | 9 | 1 | 90 | 2 | - | 5 | 9 |
| | Proprietary | 5 | - | - | - | - | 5 | - | - | - | - |
| PHD | Public | 48 | - | - | 8 | - | 33 | - | - | 1 | 6 |
| | Private | 84 | - | - | 4 | 2 | 72 | - | - | 3 | 3 |
| ALL | | 1131 | 1 | 1 | 231 | 78 | 448 | 33 | 132 | 50 | 157 |

equal to unity. Following this selection and the creation of the institution sample frame of 7,814 schools in the 120 sampled PSUs, the rest of the institution sample was selected.

Most institutions on the sample frame had an enrollment figure associated with them. This enrollment figure for school k is referred to as $u_k$ in this discussion. For some institutions the $u_k$ had to be imputed since there was no enrollment information in the source file.

The institutions were classified into 11 strata for sample selection. The strata were based on type, control, and eligibility of the institution for Pell. The stratum classification for a number of the institutions (especially for many of the less than two year institutions) was sometimes based on relatively little information. The number of institutions that were selected from each stratum was based on an initial analysis of the reliability of the estimates needed from each stratum. Speculated variances for various alternatives were computed based upon the sample size and the expected intraclass correlations. The number of institutions sampled in some of the strata were increased because of the suspicion that a higher proportion of these institutions would be ineligible (either closed or not within the scope of the study). Each institution was assigned a measure of size equal to $u_k$ times the inverse of $P_{hi}$, which we call $MOS_{jk}$, where the subscripts refer to institution k in school stratum j $(j=1,\ldots,11)$. The probability of selecting institution k *at this stage* was

$$P_{jk} = \frac{n_j \; MOS_{jk}}{\Sigma_k \; MOS_{jk}} \qquad (1)$$

The measures of size for some of the institutions exceeded the sampling interval for that stratum and were taken into the sample with certainty at this stage. If the institution was from one of the 50 certainty PSUs then it became an overall self-representing unconditional certainty selection. Otherwise it is referred to as a non self-representing conditional certainty selection, meaning that at the second stage of sampling it was selected with certainty but it was from a noncertainty PSU. In all there were 290 overall certainty institutions in the sample (162 from the institution sampling before the area sampling stage and 128 from the second stage). In addition, there were 218 conditional certainty selections.

In each stratum, the noncertainty number of selections was determined $(n_j)$ and a systematic pps sample was drawn from the ordered list, where the institutions were ordered by

PSU and measure of size within stratum. Institutions were sampled with probability proportionate to total enrollment in the institution. This was done to reduce the variance of estimates of the number of students in a stratum. When implemented, each institution in a stratum had a probability of selection proportional to its enrollment, provided the stratification and enrollment data were accurate. The first-stage sampling rate was used to assign the measure of size for each school. The total number of units sampled in this step was 802. This brought the total institution sample size to 1310. Thus the sample of institutions at this point consisted of 162 first-stage certainty institutions, 346 second stage certainty (conditional and unconditional) institutions, and 802 second stage noncertainty institutions for a total of 1,310 sampled institutions.

### 3.3.4 Special Institution Level Sampling

In addition to the sampling of institutions described here, special procedures were used to subsample large, public, multi-campus institutions and to supplement the sample for making estimates for the State of New York. These procedures are outlined below.

#### 3.3.4.1 Multi-Campus Schools

While contacting sampled schools, it was discovered that six community college systems with large enrollments situated in multiple campuses had been sampled. All were self-representing unconditional certainty selections. A list of all the campuses from each of these community colleges was obtained from the institutional coordinators. A subsample of campuses was then drawn from each of the six systems.

The campuses were arranged by their enrollment and a systematic, pps sample was drawn. The number of subsampled campuses for each system was determined so that the sampling rate for the subsample was significantly greater than the original sampling rate in the stratum. The probability of selection for each subsampled campus is formed as given in equation (1), except the measure of size is the enrollment in the campus and the sum in the denominator is over all the campuses in the system.

### 3.3.4.2 New York Supplement

A special supplemental sample for New York was designed in order to support the separate analysis of students in New York State. Arrangements for this sample were made after the national sample of schools had already been selected. This supplement was carried out only for certain sectors of the postsecondary institutions that were eligible for NPSAS. The New York State Department of Higher Education provided a frame of schools and their enrollment. Schools on the frame were stratified into sectors and a supplementary sample size was determined for each stratum. Some schools were identified as being certainty schools. Others were selected with probabilities proportional to their enrollment size on the new frame, ignoring their selection probabilities from the national sample. Although no substitute schools were used in the national sample, some substitute institutions were chosen for some nonparticipating institutions from New York. The subsample of campuses and the supplement for New York increased the number of sample institutions from 1,310 to 1,353.

Each school in the special New York frame was also on the original frame and therefore had two chances of selection: once for the original sample and a second time for the supplement if the school was in a sector that was supplemented. In order to determine the probability of selection for a school the following approach was used. Let $P_1$ be the probability of selection for a school from the original NPSAS sampling operation (in fuller notation this would be $P_{hi}P_{jk}$) and let $P_2$ be the probability of selection for the school from the New York supplement. Then, the overall probability of selection of the school is given by

$$P = 1 - (1 - P_1)(1 - P_2) \qquad (2)$$

If either $P_1$ or $P_2$ is unity, the P is unity; that is, if the unit is sampled with certainty at either stage, it remains a certainty school. The weight assigned to the school is the inverse of P.

### 3.3.5 Duplicate Schools

In spite of the unduplication operation during sample frame development, 31 sampled schools were duplicated on the frame. These schools had dual chances of being in the sample. Equation (2) determines the overall probability of the schools that were duplicated in the frame.

The vast majority (28 of 31) of the duplicates were listed in different strata (one of the unduplicating efforts was scanning within stratum) or were certainty selections, and equation (2) is appropriate. Equation (2) is appropriate if the samples are independent, as they are when a duplicate appears in a different stratum. For the three sets of duplicate schools that were listed twice in the same stratum, equation (2) is an acceptable approximation since these schools had small probabilities of selection. One of the duplicate schools was classified as ineligible for NPSAS.

### 3.3.6 The Institution Sample

1353 schools were sampled, including certainty and New York supplement schools (with substitutes for some New York sample schools). Table 3-4 shows counts of the number of institutions in the sample by stratum. Stratum in this table are based on final NPSAS values determined from the frame and by additional checking with institutions during the data collection and weighting activities. The substitute schools selected for the New York supplement are shown in braces.

The table also shows that of the sampled schools, 1,074 participated in the study and 190 were not eligible for NPSAS. Only 89 institutions refused to participate. The institutional response rate is further discussed in section 4.1.2.5.

## 3.4 Student Sampling

### 3.4.1 Student Eligibility

For a student to be eligible for NPSAS, he/she must have been attending an eligible institution on or about October 15, 1986. In addition, the student must have been enrolled one or more of the following:

- Course(s) for credit;
- Degree or formal award program; or

Table 3-4. Number of sample institutions in NPSAS by type, control and response status

| | | Number of institutions | | | |
|---|---|---|---|---|---|
| | | Response status | | | |
| **Type** | **Control** | **Total** | **Participating** | **Ineligible** | **Refusals** |
| Doctoral granting | Public | 119 | 109 | 5 | 5 |
| Doctoral granting | Private | 140 {2} | 128 {2} | 1 | 11 |
| 4-year | Public | 112 {2} | 97 {2} | 11 | 4 |
| 4-year | Private | 137 {4} | 119 {1} | 8 {1} | 10 {2} |
| 2-year | Public | 208 {1} | 185 {1} | 16 | 7 |
| 2-year | Private-not for profit | 74 | 56 | 12 | 6 |
| 2-year | Private-for profit | 95 {1} | 78 | 13 {1} | 4 |
| Under 2-year | Public | 76 | 56 | 16 | 4 |
| Under 2-year | Private-not for profit | 46 {1} | 25 {1} | 18 | 3 |
| Under 2-year | Private-for profit | 346 | 221 | 90 | 35 |
| **Total** | | 1353 {11} | 1074 {7} | 190 {2} | 89 {2} |

Notes: Ineligible schools include those that are closed, duplicates, or out of scope for NPSAS.
Numbers in { } are substitute schools

- Occupationally specific program.

Regardless of meeting the criteria, if a student was also in a high school program, he/she was not eligible. Therefore, students were eligible even if they were only enrolled part-time, and irrespective of their residence or citizenship status in the U.S.. All other students such as those taking a course only for remedial or avocational purpose and not receiving credit, those who were only auditing courses, or those who were taking courses for leisure rather than as part of an academic, occupational or vocational program or course of study, were not eligible for this study.

NPSAS data users should note that school and student eligibility criteria for NPSAS may vary from eligibility criteria for other data systems or Federal programs. Differences in eligibility criteria must be taken into account when comparing NPSAS estimates to other data.

NPSAS data users should especially note that the NPSAS student sample is designed to represent postsecondary students enrolled at a point in time (October 15, 1986). Therefore, estimates produced from NPSAS will not necessarily be directly comparable to estimates for other time periods, such as the entire 1986-1987 academic year.

### 3.4.2 Verification of Type, Control, and Enrollment

We needed to be more sure of type, control, and enrollment values for each school in order to set student sampling rates. Therefore type, control, and enrollment were verified with participating schools before continuing. After institutions were sampled, each school was contacted and asked to participate in the study. Participating schools were then scheduled for field visits. During this phase, the eligibility and operational status of the schools was further clarified and a verified or revised enrollment, type, and control was obtained for each responding institution.

Institution recruitment and scheduling occurred in October and November 1986. Schools received an advance packet with information about NPSAS and a return postcard to allow schools to indicate their willingness to participate in NPSAS. The cards also asked schools to indicate their type, control, and enrollment. Several weeks after advance packet mailing, telephone staff called postcard non-respondents. Telephone staff presented school representatives with type, control, and enrollment from the sampling file and asked for verification or correction. During field visit scheduling, telephone staff verified each institution's type control and enrollment yet again. Further telephone calls were made to resolve inconsistencies.

It is probable that during telephone prompts some institutions did not modify their enrollment figure if the original measure ($u_k$) was close to their current enrollment figures. There was also some ambiguity in their response to the control of the institution. In particular, institutions that were proprietary might have verified their control as being "private", especially since the proprietary option was not specifically noted in the verification process. In the same vein, the Pell eligibility of the schools was not verified during telephone contact so that it was not possible to classify the less than two year schools by their Pell eligibility for the final classification.

### 3.4.3 School Enrollment Lists

The first step in sampling students from within the sampled institutions was to request from sampled schools a list of students. Institutions were asked to provide a list of all students who were enrolled in the school as of October 15, 1986 (or as close as possible to that date) and who met the definition of student eligibility (described in 3.4.1). In most cases schools mailed the lists of students to Westat for sampling; in other cases trained field data collectors drew the sample at the school immediately preceding Fall Records abstraction.

### 3.4.4 Student Sample Design

It was necessary to obtain a sample large enough to make reliable estimates of characteristics of undergraduate, graduate, and first-professional students. In order to accomplish this objective, the students on the list provided by the school were stratified by level (undergraduate, graduate, and first-professional) before sample selection. Sampling rates were assigned for each level of student. The rates for graduate and first-professional students were 3 to 7 times larger than the rate for undergraduate students. If the student list did not permit the stratification of students by level, then the undergraduate rate was used for all students in the school.

The sampling rates for each institution were constructed so that each student in a stratum had an equal probability of selection. The overall sampling rates are shown in Table 3-5. One modification to the equal probability plan was made to insure a minimum sample size of ten students in each stratum in an institution. This was done because it is inefficient to send field staff to an institution for a sample of fewer students.

The probability of sampling a student within a school can be represented as

$$P_{lm} = 1/I_{lm} \qquad (3)$$

where $I_{lm}$ is the sampling interval for student m in student sampling stratum 1 (1 = 1,2, or 3 - undergraduate, graduate, first-professional).

### 3.4.5 Student Sampling Operation

Originally it was planned that all student sampling be undertaken by trained field data collectors at institutions at the time of Fall Records abstraction. Instead, during the scheduling contact schools were given the option to send enrollment lists to Westat for sampling prior to the field visit. This was done to allow schools to prepare for the field visit by pulling student files. This divided the student sampling operation into in-house and field components.

The number of schools choosing the option of sending a list to Westat for pre-visit sampling was much greater that anticipated. 78 percent of all participating institutions sent lists (including tapes) to Westat.

The in-house sampling operation began in November 1986 and continued through December 1986. A trained staff of up to ten people sampled students from the school enrollment lists. Field sampling began with field visits in December 1986 and continued through to the last institution field visit. Westat statisticians trained 170 field data collectors during field training in early December 1986. In-house and field sampling procedures were identical except that field

Table 3-5. Overall student sampling rates by school stratum and student stratum

| Strata | | | | | |
|---|---|---|---|---|---|
| **Control** | **Type** | **Pell eligibility** | **First professional** | **Graduate** | **Undergraduate** |
| **Public** | **PhD granting** | | 0.0208 | 0.0057 | 0.0038 |
| **Private** | **PhD granting** | | 0.0208 | 0.0103 | 0.0103 |
| **Private** | **4-year** | | 0.0208 | 0.0130 | 0.0050 |
| **Private** | **4-year** | | 0.0208 | 0.0170 | 0.0069 |
| **Private** | **2-year** | | | | 0.0015 |
| **Private** | **2-year** | | | | 0.0210 |
| **Proprietary** | **2-year** | | | | 0.0160 |
| **Public** | Under 2 year | | | | 0.0060 |
| **Private** | Under 2 year | | | | 0.0350 |
| **Proprietary** | Under 2 year | Pell eligible | | | 0.0140 |
| **Proprietary** | Under 2 year | Not Pell eligible | | | 0.0140 |

samplers were able to sample from card or file drawers. Both in-house and field samples were trained to sample from microfiche. All sampling staff consulted with Westat senior statisticians to resolve sampling problems.

The sampling algorithm was implemented by using a small, hand-held computer with a screen capable of displaying up to sixteen alphanumeric characters. With the computers, sampling staff systematically sampled students using a random start and the sampling rate. These computers were preprogrammed to do the specific sampling procedure for this study. The computers were used to eliminate the mechanical errors associated with drawing a systematic sample from a large list of students. They also provided for some gross quality checks on the list from which the sample was drawn. Several staff statisticians checked the operations of the programmable calculators before sampling staff ever used them.

Sampling staff documented their work with two forms. Samplers used the Student Sampling Worksheet (Appendix A-1) to document the date of sampling, type of records, the sort order of records, the number of students on each sampled list, the number of ineligible students, and the actual enrollment (excluding ineligible students) for the school stratified by level. The sampler used a Student Sample Listing Sheet (Appendix A-2) to list sampling hit numbers, list sampled students name, social security and school i.d. numbers (if available), and to verify student eligibility with an eligibility check.

Sampling staff was instructed, if possible, to eliminate from the list, prior to sampling, any large groups of students which did not meet the student eligibility requirements of the study. The Sample Listing Sheet prompted samplers for the eligibility check on each student. After selecting the sample of students, sampling staff went to the file or records and eliminated any sampled students who did not meet the student eligibility requirements.

The in-house sampling operaticn, allowed Westat to mail the list of sampled students to an institution prior to the site visit for Fall Records abstraction. Unless the school requested return of an enrollment list, Westat retained it. These lists later proved an invaluable source for problem resolution throughout the duration of 1987 NPSAS.

The sampling of students within a school was reviewed as the information flowed into the receipt control center. Two trained staff members examined each set of forms and verified the sampling operation. Problems which they could not resolve were forwarded to the statistical staff to determine if special instructions had been provided for that school.

Several schools required special handling. Some schools sent computer tapes of enrolled students to Westat for sampling. Tape lists were handled by Westat programmers who read school enrollment files onto Westat's VAX computer and, with instructions from senior statisticians, selected the school's sample.

Nine schools requested to sample students themselves. A Westat Senior Statistician contacted the school and gave instructions for proper sampling.

Two schools asked to have the size of their samples reduced. Each school was persuaded to retain as much of the original sample as possible. The statistical staff then adjusted sampling rates and weights for the schools accordingly.

### 3.4.6 First-Professional Augmentation

The major problem encountered in the sampling operation was that schools often did not list the level of the student or did not have the list sorted by this level. In these circumstances, the undergraduate rate was used for all students regardless of their level. The result was a reduction in the sample size for graduate and first-professional students. The precision for estimates of first-professional students was most affected by the smaller number of sampled students. However, it did not imply a bias in the estimates since all the students still had a valid probability of selection. It did mean that the desired sample sizes were not achieved, especially for the first-professional students which were to have been sampled at about three to seven times the undergraduate rate. In order to increase the sample size of first-professional students, all sample institutions with these students were recontacted and arrangements were made to sampled more first-professional students. An additional 2,180 students were included in the file as a result of this augmentation.

No further sampling of graduate students was necessary because the difference in the undergraduate and graduate rates was not large enough to reduce the graduate sample size below the minimum number of graduates needed for analysis.

### 3.4.7 Non-Response Subsampling

Initially, we were to provide a telephone followup for only a subsample of non-responding student. Working with NCES, however, we were able to give *all* non-responding students a telephone followup. The subsample was to have been a systematic random subsample with stratification by institution stratum, aidedness (aided or non-aided), and dependency (dependent or independent).

### 3.4.7 The Student Sample

The sample was expected to number approximately 70,000 students. During the field period it was realized that a smaller number of students would actually be included in the sample. There were three major reasons for the smaller sample size. First, some institutions which had initially indicated that they would participate, later refused to do so. Second, some of the students included on the institution listing were not eligible for the study. Third, if the institution listing did not permit stratification of the student by level, then the undergraduate rate was used for all students. The overall effect was a reduction in the sample size by about 12,000 from the anticipated size.

The number of students sampled for the Fall Records data abstraction and the student survey is shown in Table 3-6 by stratum. Table 3-7 shows the number of sampled students by level. These counts include students sampled for the New York State supplement and for the first-professional augmentation. Stratum and level in this table are final NPSAS classifications.

It is clear from tables 3-6 and 3-7 that for this study, the sample size within institution was very large. Given the fact that the within-school intraclass correlation was large for many estimates related to financing postsecondary education, some discussion of the large sample sizes is warranted. First, it should be noted that over two-thirds of the sample was drawn from four-year schools. In these schools the analysis demands were great. For example, students in these schools will be analyzed not only by first-professional, graduate, and undergraduate levels, but also by the

Table 3-6. Number of sampled students by stratum

| Stratum | | |
|---|---|---|
| Type | Control | Number of Sampled Students |
| Doctoral | Public | 13,231 |
| Doctoral | Private | 13,383 |
| 4-year | Public | 8,372 |
| 4-year | Private | 8,998 |
| 2-year | Public | 6,505 |
| 2-year | Private | 2,083 |
| 2-year | Proprietary | 2,081 |
| Under 2 year | Public | 765 |
| Under 2 year | Private | 507 |
| Under 2 year | Proprietary* | 3,961 |
| Total | | 59,886 |

*Proprietary, less than two-year schools were sampled with different rates based on their eligibility in Pell programs

Table 3-7. Number of sampled students by level

| Level | Number of Sampled Students |
|---|---|
| Unclassified | 6,446 |
| Undergraduate | 42,284 |
| Graduate | 5,803 |
| First-Professional | 4,213 |
| Graduate, Unclassified | 1,140 |
| Total | 59,886 |

class within the undergraduate level (freshman, sophomore, junior, and senior) and by many other characteristics.

The analytic requirements for subgroups have a direct bearing on the efficiency of the sample design. This relationship can be seen by first noting that in a cluster design of this sort the variance of the estimate is roughly equal to $\{1 + \partial(\bar{n} - 1)\}$ times the variance of a simple random sample of students, where $\bar{n}$ is the average number of students sampled per school and $\partial$ is the within-school intraclass correlation. Although this approximation is very crude, it is useful for illustrating the relationship between the analytic needs for subgroups and the variance of the estimates as a result of clustering students. For a national estimate of all students, $\bar{n}$ may be as large as 100 and the resulting variance of the estimate will not be very efficient (assuming $\partial$ is positive and relatively large). However, for a subgroup such as seniors, $\bar{n}$ may be less than 20. Smaller subgroups will have even smaller subgroups of $\bar{n}$, and the clustering of students by institution for these subgroups will not be as significant a factor in the variance of the estimates.

## 3.5 Parent Subsampling

### 3.5.1 Parent Sample Eligibility

Although the parent survey surveyed parents of the 1987 NPSAS in-school sample, the sampling unit for the parent survey was the student. Initially, parent subsample eligibility coincided with the eligibility requirements of the student sample from which it was derived. During the course of the survey, however, the scope of the parent survey was modified for reasons discussed below. As a result, students were excluded from the parent survey universe if they were independent and over 25 years old or if their parent had a foreign address.

### 3.5.2 Sample Design

The sample was selected in steps. In the first step, a systematic sample of all of the students sampled for NPSAS was selected based upon the information from items on the preliminary Fall Records data file. The characteristics of students in this subset file that were used for determining the probabilities of selection were the student's dependency status, financial aid status, and age. All students who were classified as either unaided and dependent or as aided, independent, and under 25 years old were included in the sample with certainty. Students in the other categories were sampled at much smaller rates. The rates varied by type and control of institution attended as well as by the classification variables.

The second step of the sample was also designed to use the information from the full preliminary Fall Records data file. If the parent's adjusted gross income was missing in this file, and the student had not been sampled in the first step, then the student was brought into the sample with certainty. Furthermore, any graduate or first-professional student who was not previously sampled was put through the sampling process again, nearly doubling the sampling rate for these students.

The third step in the process of sampling students whose parents would be included in the survey was the exclusion of students who were independent and over 25 years old. Also students whose parents had a foreign address were eliminated from the survey as being out of scope.

The fourth and final step was the subsampling of certain nonrespondents for telephone followup. The purpose of the subsampling was to reduce the cost and the time required to locate and interview all of the parents who had not responded to the mail survey questionnaire. Students were eligible for the subsample if they were undergraduate, dependent, unaided, attended a four-year institution or a public two-year institution, and their parents had not responded to the mail questionnaire. A fifty percent subsample of these students was selected for the telephone followup. All of the nonresponding parents associated with students not eligible for subsampling were sent for telephone followup.

### 3.5.3 Basic Parent Sample

The sampling process for the survey of parents was extremely complex in the sense that it was carried out in waves during the summer of 1987, and the composition of the population to be sampled changed over this time. For example, the sample for the parent survey was selected from the preliminary Fall Records data file. The composition of this file changed from the time of initial sampling. Some students were added as their data was processed and other students were deleted because they were determined to be outside of the scope of the NPSAS student survey. These changes necessitated sampling in waves (there were six waves of sampling, each composed of students who had not been previously eligible for sampling) as the files were modified. The sampling was done in this way in order to accommodate telephone non-response followup and file building schedule.

Another factor that complicated the sampling process was the two-stage process that was used because items desired for sampling were not on the preliminary file used in sample selection. The sampling plan was changed to incorporate the level of the student (undergraduate, graduate, and first-professional) and the presence of parents' adjusted gross income. These items were not included in the subset file that was planned to be used for sample selection. A second stage of the sampling was incorporated to include a more complete file with these items when they were processed. The stage described here was in addition to the sampling by waves described earlier.

Both of these factors complicated the process. The details associated with these complications are largely ignored in the discussion which follows because they tend to obscure the important sampling methods. Greater detail is provided when the facts associated with the complications impact the sampling or estimation methods.

The population of students from which the subsample for the survey of parents was selected is shown in Table 3-8. The counts in the table include all students who were eligible for NPSAS as determined in the Fall Records file. Note that the variables used to describe the population (institution type and control, aidedness, dependency, and age) are derived from a preliminary Fall Records data file. Changes made later in editing this file are not reflected in the table because these counts are intended to represent the sample selection process.

The sampling rates that were used to select the basic sample for the parent survey are shown in Table 3-9. The very large differences in subsampling rates (a factor of up to 20:1) were intentionally introduced in order to accomplish the primary objective of this sample, i.e., obtain family financial information for those students missing this data on the Abstract file. Generally speaking, the family financial information was not collected (it was not available at the schools for data collection) for unaided students, hence 100 percent of the dependent, unaided students were

Table 3-8. Number of students in NPSAS sample by categories used in subsampling for the survey of parents

| Stratum | Unaided | | Aided | | | Total All Students |
|---|---|---|---|---|---|---|
| | Dependent | Independent | Dependent | Independent | | |
| | | | | Under 25 yrs | Over 25 yrs | |
| Public-PhD | 5,416 | 2,677 | 3,142 | 760 | 1,046 | 13,041 |
| Private-PhD | 4,031 | 3,009 | 4,402 | 517 | 1,213 | 13,172 |
| Public-Other 4 yr | 3,582 | 2,112 | 1,937 | 423 | 503 | 8,557 |
| Private-Other 4 yr | 2,362 | 2,093 | 3,631 | 434 | 677 | 9,197 |
| Public-2 yr | 2,759 | 2,343 | 590 | 173 | 418 | 6,283 |
| Private-2 yr | 635 | 251 | 812 | 114 | 232 | 2,044 |
| Proprietary-2 yr | 351 | 175 | 839 | 260 | 465 | 2,090 |
| Public-< 2 yr | 332 | 331 | 127 | 47 | 181 | 1,018 |
| Private- < 2 yr | 204 | 114 | 294 | 129 | 241 | 982 |
| Proprietary- < 2 yr | 454 | 286 | 1,004 | 607 | 1,151 | 3,502 |
| Total | 20,126 | 13,391 | 16,778 | 3,464 | 6,127 | 59,886 |

Note: All of the variables used in the table are based upon preliminary data items which were available at the time of sampling. The counts of students by the final variables differ from these.

Table 3-9. Sampling rates by categories of students used in susbsampling for the survey of parents

| | Unaided | | Aided | | |
|---|---|---|---|---|---|
| | | | | Independent | |
| Stratum | Dependent | Independent | Dependent | Under 25 yrs | Over 25 yrs |
| Public-PhD | 1.00 | 0.15 | 0.07 | 1.00 | 0.20 |
| Private-PhD | 1.00 | 0.15 | 0.05 | 1.00 | 0.15 |
| Public-Other 4 yr | 1.00 | 0.15 | 0.08 | 1.00 | 0.20 |
| Private-Other 4 yr | 1.00 | 0.15 | 0.06 | 1.00 | 0.20 |
| Public-2 yr | 1.00 | 0.15 | 0.20 | 1.00 | 0.20 |
| Private-2 yr | 1.00 | 0.50 | 0.15 | 1.00 | 0.40 |
| Proprietary-2 yr | 1.00 | 0.50 | 0.15 | 1.00 | 0.20 |
| Public- < 2 yr | 1.00 | 0.35 | 0.80 | 1.00 | 0.40 |
| Private- < 2 yr | 1.00 | 0.80 | 0.40 | 1.00 | 0.40 |
| Proprietary- < 2 yr | 1.00 | 0.35 | 0.12 | 1.00 | 0.10 |

Note: All of the variables used in the table are based upon preliminary abstract data items which were available at the time of the sampling. The counts of students by the final variable differ from these.

subsampled. Because of a change in the rules for defining dependency status for financial aid, a 100 percent rate was also applied to the independent, aided students who were born after October 1, 1961.

Two additional procedures were implemented for the basic sample in order to accomplish the goals of the survey. First, any dependent-aided student with missing data for the Abstract adjusted gross family income item was included in the parent survey. This action is consistent with the rationale discussed in the previous paragraph. Second, any graduate or first-professional student who was not sampled in the first step was subjected to a second sampling. In effect, this increased the sampling rate by factor of approximately two for those students who were sampled at a relatively small rate. In general, the overall rate for these graduate and first-professional students is given by r(2-r), where r is the rate from Table 3-9. This was done in order to increase the precision of estimates of graduate and first-professional students.

The sample was selected by first classifying all of the students into the cells shown in Table 3-9. Within these cells, or strata, the students were ordered by the institution they attended. This ordering was done to diminish the effects of clustering within institution. The sample was then selected systematically using the rates specified in Table 3-9.

The resulting size of the sample for the parent survey is shown in Table 3-10 by the sampling cells. The overall sample size for the basic sample was 31,705. Questionnaires were mailed to the parents of the sampled students. The address information for many parents was missing or incomplete. Locating activities and the use of other mailing addresses were important factors considered in the distribution of the questionnaires.

### 3.5.4 Scope Revisions

After the questionnaires had been mailed, it was decided to limit the scope of the survey by certain student characteristics. The decision was made to drop the population of parents associated with independent students who were 25 years old or older as of October 1, 1986, from the scope of the survey. This decision was made because the parents of many independent students who were 25 years old or older were thought not to contribute a significant amount to the student's educational activities. Furthermore, under the new definition of dependency status,

**Table 3-10.** Number of students in NPSAS sample by categories used in subsampling for the survey of parents

| | Unaided | | Aided | | | Total |
|---|---|---|---|---|---|---|
| | | | | Independent | | All |
| Stratum | Dependent | Independent | Dependent | Under 25 yrs | Over 25 yrs | Students |
| Public-PhD | 5,416 | 560 | 564 | 760 | 290 | 7,590 |
| Private-PhD | 4,031 | 664 | 799 | 517 | 297 | 6,308 |
| Public-Other 4 yr | 3,582 | 384 | 401 | 423 | 108 | 4,898 |
| Private-Other 4 yr | 2,362 | 419 | 634 | 434 | 159 | 4,008 |
| Public-2 yr | 2,759 | 351 | 219 | 173 | 81 | 3,583 |
| Private-2 yr | 635 | 123 | 282 | 114 | 92 | 1,246 |
| Proprietary-2 yr | 351 | 88 | 283 | 260 | 93 | 1,075 |
| Public-< 2 yr | 332 | 115 | 104 | 47 | 70 | 668 |
| Private- < 2 yr | 204 | 90 | 160 | 129 | 95 | 678 |
| Proprietary- < 2 yr | 454 | 99 | 377 | 607 | 114 | 1,651 |
| Total | 20,126 | 2,893 | 3,823 | 3,464 | 1,399 | 31,705 |

Note: All of the variables used in the table are based upon preliminary data items which were available at the time of sampling. The counts of students by the final variables differ from these.

these students were considered to be independent. For independent students, the student's income and assets are used in determining student eligibility for aid. Since the Student Questionnaire contains the items on student income and assets, the parent items are not relevant for this group of students. A final consideration was that the locating information for the parents of independent students is much poorer than for the dependent students' parents.

Parents who lived outside of the United States and Canada were also eliminated from the survey. These parents were eliminated by examining the address labels printed out for the mailings. Not all of the parents with foreign addresses could be eliminated in this step. For example, some questionnaires were mailed to a local address and then returned by the Post Office with forwarding addresses that were outside of the United States. A response status of foreign address was introduced in the receipt control system to record those parents who were mailed a questionnaire and lived outside the U. S. at the time of the survey.

Table 3-11 shows the sample distribution after the elimination of the out-of-scopes. A total of 4,290 units were eliminated as a result of the scope revisions. This left 27,415 parents in the survey. The variables used in Table 3-11 are the original sample selection variables. The scope revisions were made based upon variables in a file that had been edited and revised since the time of the original sample selection. This fact accounts for some of the apparent anomalies in the table.

Some of the parents who were declared to be out-of-scope had already returned a questionnaire prior to the change. A total of 626 responses were discarded as a result of the scope revision.

The change in scope has implications for the target population and the estimates of the population. The estimates from the sample can only be used to infer to the in-scope population of students, not all eligible NPSAS students. In addition, a bias arises when a student over the age of 24 was classified as being independent at the time of sampling and is actually dependent. Under the revised scope this student's parent had no chance of being in the sample because the parents of independent, older students were out-of-scope. The magnitude of this bias is not known at this time. The bias may be relatively modest because the rule for classifying students by dependency status placed a student with questionable dependency status in the dependent category. No bias is incurred in this category.

Table 3-11. Sample size for the scope parent sample by categories used in subsampling for the parent sample (excludes parents of older, independent students and parents with foreign addresses)

| | Unaided | | Aided | | | Total |
|---|---|---|---|---|---|---|
| | | | | Independent | | All |
| Stratum | Dependent | Independent | Dependent | Under 25 yrs | Over 25 yrs | Students |
| Public-PhD | 5,356 | 34 | 557 | 753 | 6 | 6,706 |
| Private-PhD | 3,955 | 119 | 787 | 511 | 10 | 5,382 |
| Public-Other 4 yr | 3,547 | 34 | 397 | 418 | 0 | 4,396 |
| Private-Other 4 yr | 2,327 | 39 | 626 | 426 | 2 | 3,420 |
| Public-2 yr | 2,740 | 23 | 218 | 170 | 1 | 3,152 |
| Private-2 yr | 617 | 14 | 280 | 113 | 1 | 1,025 |
| Proprietary-2 yr | 349 | 27 | 281 | 257 | 1 | 915 |
| Public-< 2 yr | 327 | 23 | 103 | 47 | 1 | 501 |
| Private- < 2 yr | 200 | 4 | 159 | 125 | 1 | 489 |
| Proprietary- < 2 yr | 449 | 15 | 374 | 589 | 2 | 1,429 |
| Total | 19,867 | 332 | 3,782 | 3,409 | 25 | 27,415 |

Note: All of the variables used in the table are based upon preliminary abstract data items which were available at the time of sampling. The scope revisions were based upon the items from a later edited file.

### 3.5.5 Nonrespondent Subsampling

The option of subsampling parents of the dependent, unaided students who were undergraduates and in four-year or public two-year institutions was proposed at the time of the original sample design for the survey of parents. There were two reasons for this suggestion. First, a 100 percent sample of these students was not necessary for the purpose of forming national estimates (although still useful for imputation of family characteristics). Second, the resources needed to include all parents in the original mailing and the telephone followup exceeded the budget and time constraints of the study.

For these reasons, it was decided to use the full sample for mailing to the parents. A subsample for followup was planned depending upon the response rate to the questionnaire. The students eligible for subsampling were the dependent, unaided undergraduate students in four-year or public two-year institutions whose parents had not responded to the survey at the time of commencing telephone followup. There were 3,246 students in the public-PhD stratum, 2,057 students in the private-PhD stratum, 2,467 students in the public-other four-year stratum, 1,573 students in the private-other four-year stratum, and 2,115 students in the public two-year stratum who were eligible for subsampling for nonresponse followup.

The subsampling for telephone followup was accomplished using the same procedures used in the original subsampling of students for the parent survey. The students (after the students who were out-of-scope were eliminated) were sorted within the strata (the five specified cells) by institution attended and a 50 percent subsample was selected systematically. The nonresponding parents subsampled were sent to the telephone center for followup, along with all in-scope parents from the other strata who had not responded to the mail questionnaire.

Of the 11,458 students in these categories who were eligible for nonresponse subsampling, a total subsample of 5,729 was selected. The number of nonrespondents subsampled for telephone followup by stratum were 1,623 students in the public-PhD stratum, 1,028 students in the private-PhD stratum, 1,234 students in the public-other four-year stratum, 786 students in the private-other four-year stratum, and 1,058 students in the public two-year stratum. Table 3-12

**Table 3-12** Sample size after nonresponse subsampling and the sample size revision because of the change in scope (excludes parents of older, independent students, with foreign addresses, and not subsampled for telephone followup)

| | Unaided | | Aided | | | Total |
|---|---|---|---|---|---|---|
| | | | | Independent | | All |
| Stratum | Dependent | Independent | Dependent | Under 25 yrs | Over 25 yrs | Students |
| Public-PhD | 3,733 | 34 | 557 | 753 | 6 | 5,083 |
| Private-PhD | 2,926 | 119 | 787 | 511 | 10 | 4,353 |
| Public-Other 4 yr | 2,314 | 34 | 397 | 418 | 0 | 3,163 |
| Private-Other 4 yr | 1,540 | 39 | 626 | 426 | 2 | 2,633 |
| Public-2 yr | 1,683 | 23 | 218 | 170 | 1 | 2,095 |
| Private-2 yr | 617 | 14 | 280 | 113 | 1 | 1,025 |
| Proprietary-2 yr | 349 | 27 | 281 | 257 | 1 | 915 |
| Public-< 2 yr | 327 | 23 | 103 | 47 | 1 | 501 |
| Private- < 2 yr | 200 | 4 | 159 | 125 | 1 | 489 |
| Proprietary- < 2 yr | 449 | 15 | 374 | 589 | 2 | 1,429 |
| Total | 14,138 | 332 | 3,782 | 3,409 | 25 | 21,686 |

Note: All of the variables used in the table are based upon preliminary abstract data items which were available at the time of sampling. The scope revisions were based upon the items from a later edited file.

shows the number of parents that were in the sample after the exclusions for scope reasons and after the nonresponse subsampling. The total is 21,686 parents for whom a response to the items on the Parent Questionnaire was elicited after the telephone followup subsample was taken into consideration.

# 4. UPDATED FALL RECORDS

## 4.1 Fall Records Data

The aim of Fall Records data collection was to obtain information on sampled students from school registrar and financial aid offices. This information included demographic characteristics, enrollment information, information on student performance, and, if the student was aided, information on financial aid awards and family financial characteristics. An essential part of Fall Records data collection was also to collect mailing addresses for the NPSAS student and parent mail surveys. The 1987 NPSAS schedule required that sampled students' names and addresses be obtained from enrollment records in Fall 1986 so that questionnaires could be sent to sampled students while they were likely to still be in school in the Spring of 1987.

### 4.1.1 Forms Design

Data collection instruments for 1987 NPSAS were based on the forms that were used for the NPSAS Field Test, modifying the field test instruments to reflect the changes suggested by our experience in field test operations and by the analysis of the field test data. This effort was a collaborative one among Westat, NCES, the NPSAS Steering Committee, the NPSAS Advisory Group, and various work groups. The forms which were finally used in 1987 NPSAS were substantially different from the field test instruments.

The field test used four data collection instruments--a registrar's office record form, a financial aid office records form, a student survey, and a parent survey. Westat forms-design staff, consultants, and work groups reviewed items in all of the field test instruments which were subject to response error or were frequently missing so that the individual items could be modified to get a more reliable response, moved to a different instrument where the same information might be acquired in a more reliable or consistent way, or dropped because the data items would not be available from any source.

Field test results indicated a very high rate of agreement on many categorical items among the four sources of data--registrar's office, financial aid office, students, and parents. This provided the questionnaire designers with room to move items from one form to another to gain better efficiency in the data collection procedures.

#### 4.1.1.1 Record Abstract Form

The Record Abstract Form (Appendix A-3) was the primary institution-level data collection instrument for the 1987 National Postsecondary Student Aid Study.

The Record Abstract Form combined the functions of the field test's registrar's office and financial aid office abstract forms. During the field test, data collectors often duplicated registrar's office abstract form information on the financial aid abstract form. Having a single institution data collection form eliminated duplication of effort. It also reduced the amount of paper that data collectors, field supervisors, and our data preparation staff would have to handle.

The Record Abstract Form underwent additional revisions to streamline its administration and remove items that were generally not available in the files of the registrar or financial aid office. Questions on actual disbursed financial aid award amounts were dropped since such items generally were not in financial aid files, especially at the beginning of the academic year when data collection would take place. Some items, such as the program and school requirements for graduation or completion did not vary from student to student, so they were moved to a second institution-level data collection instrument, the Institution Checklist (Appendix A-4), one of which would be filled out by each institution's NPSAS coordinator.

A considerable amount of discussion focused on whether to acquire financial aid data only from aided students' current-year file or to try to get information on all years attendance. Because the field test suggested that historical data would not be available with uniformity, we decided not to collect historical data.

The final version of the Record Abstract Form had three sections--a section for student addresses and demographic information, a section on fall enrollment status, and a section for financial aid questions.

Information for the first two sections of the form were to be collected from registrars' offices. The first section of the form collected demographic information, addresses for NPSAS student and parent surveys, and identification information, such as school name, student name, social security number, and school-assigned I.D. number. (All identification information was used only for project quality control and survey administration.) To expedite the production of an address file so that the student survey could be conducted on schedule, identification information and addresses went on the form's cover page, which was printed with a write-through carbon (NCR paper). The cover page's top copy could be torn off and sent to Westat quickly, independent of other editing and supervisor processes. Upon receipt of the top copy of the cover page at Westat, our data preparation and processing staff were able to quickly compile the list of students' names, addresses, and basic classifying information before the rest of the data abstracted onto the form was processed.

The second section of the Record Abstract Form included questions on the student's total tuition and fees, course load, program information, current program level, grade point average, and matriculation information. A skip pattern allowed a separate set of several questions for students enrolled in clock- or contact-hour rather than credit-hour programs.

The Record Abstract Form's third section covered information found in institution financial aid offices. It used a skip pattern so that data collectors would collect financial aid file information only on aided students. Data items covered included marital status, dependency status, Pell program information, dependent and independent student family information, expected family contribution calculations, award amounts, and length of award period. This section also contained several questions on New York State sponsored aid programs. These questions were to be answered for New York students only and used to support special analysis for the New York State Department of Higher Education.

The forms were pretested at several non-sampled institutions in the Washington D.C. area. The institutions were of varying type and control. Of special concern was that the form would work well at institutions using a clock- or contact-hour system.

The final reviews of the Record Abstract Form were completed in October 1986 by the Steering Committee, various working groups and the NPSAS Advisory Group. Because the Record Abstract Form was to be used only for abstracting information from the files of the selected institutions, NCES legal and policy staff determined that FEDAC/OMB review and clearance would not be required. The final version of the form was sent to the printers November 4, 1986.

#### 4.1.1.2 Institution Checklist

The Institution Checklist was an auxiliary school-level data collection instrument that was developed for completion by each institution's NPSAS coordinator. It was the only form used in NPSAS that was not also used in the NPSAS field test; therefore it had to be designed in its entirety.

Originally conceived as a survey of institution financial aid officers, the Institution Checklist was first called the Financial Aid Officer Questionnaire. Its primary goal was to provide insight into the financial aid policies in use by the sampled institutions, particularly in the area of aid packaging. The survey would ask financial aid officers about their policy, aid delivery procedures, and other related needs and activities.

Several panels, including a work group of financial aid administrators, the NPSAS Advisory Group, and the NPSAS Steering Committee, reviewed the original objectives of the survey and expressed their concerns about its practicality. Some saw the survey as needlessly duplicating other studies, such as the NASFAA study on financial aid need analysis policy. Others, the working group of financial aid administrators in particular, felt that acquiring data on an institution's financial aid packaging would necessarily be incomplete. They argued that financial aid administrators would report only stated institution policy in response to questions about packaging. The questionnaire would fail to capture discretionary judgements used in determining individual aid packages.

In response to these concerns, the purpose and structure of the form as it was originally proposed were modified. The form would collect a bare minimum of general information on the regulations and policies of each institution's registrar and financial aid offices and would be used primarily to help the data collector locate all of the relevant financial aid records. To reflect these changes, the form was renamed the Institution Checklist.

In its primary function, this survey would provide information about the location and nature of student records at an institution. Responses to these questions would be used by the data collector on site to help find students' files and to ensure that missing information would be minimized. For financial aid data items, the checklist asked for a specific best file source for each of these items. If an institution had separate registrar or financial aid offices for its different schools, the form would list the address and give a contact person for each of these.

For registrar operations, the Institution Checklist would also ask about the school's calendar, grading system, tuition, and credit-hour requirement for all school programs. For the institution's financial aid office, the checklist would identify the financial aid need analysis service that the institution uses (College Scholarship Service, American College Testing Program, etc.) and record the institutional and standard Pell budgets that the office uses to calculate financial aid awards.

The structure of the Institution Checklist follows the Record Abstract Form, dealing first with registrar's office questions and then moving to financial aid office data items. In the checklist's financial aid section, questions regarding best source for Record Abstract Form data items follow Record Abstract Form item-by-item.

### 4.1.2 Enlisting Sampled Institutions

While the Record Abstract and Institution Checklist forms were undergoing final revisions, sample institutions were enlisted. This was done by first sending them a packet of materials with a postage-paid response card and then calling all non-responding institutions by telephone.

#### 4.1.2.1 Advance Packet Mailing

On September 23, 1986, a packet of introductory materials was mailed to the Chief Administrator of each sampled institution. The packet contained a letter from NCES informing the institution of their selection for the study and introducing Westat as the study contractor. The letter asked the Chief Administrator to name a NPSAS coordinator for the institution. The packet also contained a brochure, which described the overall study, an information sheet, which detailed the participation requirements of each institution, and a postage-paid return postcard. The Chief Administrator was to use the postcard to provide us with the name and phone number of the appointed coordinator and verify the institution's type, control and enrollment. Updated type, control, and enrollment provided statisticians with information necessary for selecting student sampling rates for each school.

### 4.1.2.2 Institution Participation Receipt Control System

To monitor the enlistment process, a receipt control system was created on one of Westat's VAX 11/780 computers. From the computer file of sampled schools, the school's name, address, type, control, enrollment, and Westat I.D. number were loaded onto the system. Blank fields were created for input of coordinator name, coordinator title, coordinator telephone, and participation status code. The status code indicated whether the school had agreed or refused to participate, was determined to be ineligible after sampling, had closed, was a duplicate of another sampled institution, or was not locatable.

Upon return of the postage-paid return postcard, a staff member entered values for participation status, coordinator name, coordinator title, and coordinator telephone onto the institution participation receipt file. If the postcard provided new information on school type, control, and enrollment, the staff member updated these values on the file.

### 4.1.2.3 Institution Non-Response Followup

Beginning October 7, 1986, two weeks after the advance packets were mailed, and continuing for three weeks, Westat Telephone Research Center (TRC) interviewers began contacting all institutions that had not yet returned a postcard. Approximately 750 of the original 1,353 institutions required a followup.

Thirty Telephone Research Center interviewers were trained for the followup in a three-hour session. During training, interviewers were given an overview of the study and were instructed on general procedures to follow in making calls. Step-by-step completion of the interview script was discussed and instructions in handling clerical and administrative matters and rehearsed answers to likely respondent questions were given. Interviewers were provided with a manual which followed the training agenda and which served as reference during the followup operation.

Telephone followup contacts used a prepared script. Interviewers were instructed to deviate from the script only when necessary to make explanations and maintain good rapport. The script had eleven sections. The first few sections prompted the interviewer in an initial discussion with an institution's receptionists and/or secretaries. Interviewers always tried to complete the script with the institution's Chief Administrator. If this proved impossible, they were instructed to work through a secretary or an assistant, but to make sure that the Chief Administrator was fully informed about the study. The rest of the script guided the interviewer in initiating a conversation with the school's Chief Administrator, explaining the study to the Chief Administrator if she/he was not yet familiar with it, securing agreement to participate, obtaining the name of a coordinator, and verifying our information on the school's type, control, and enrollment. Interviewers recorded respondent answers on the script.

Interviewers were given a specification sheet for each institution that gave them the institution's name and address, an identification number, and current information on the school's type control, and enrollment. This sheet was computer generated from our institution participation receipt control file. To this sheet, staff added institution telephone number and the name of the school's Chief Administrator to the sheets when this information was available from current school directories such as HEP or Postsecondary Schools with Occupational Programs. If telephone numbers were unavailable, interviewers obtained them through directory assistance.

Interviewers documented all calls using standard Westat Telephone Research Center procedure and also recorded names and titles of school administrators if more than one person at a school needed to be contacted in order to obtain a decision to participate. Interviewers documented all problem cases, and these cases were reviewed by a supervisor before further action. If a school requested another copy of the advance packet, interviewers verified the school's mailing address on a form and passed this form on to clerical staff for packet mailing.

After calls were completed, a staff member used the completed telephone script to enter participation status, coordinator information (name, title, and phone number), and institution information (type, control, and enrollment) onto the receipt system. A separate status code identified a school as being recruited by phone as opposed to schools who sent in the postcard from the advance packet.

### 4.1.2.4 New York Supplement Enlistment

The participation of New York supplement schools was solicited in the same manner as the national sample--an advance packet mailing followed by telephone followup. The advance packet mailing was sent in early January 1987. The packet was identical to the one used for the national sample but included an additional letter from the New York State Education Department encouraging participation in the study. Operation staff called non-responding schools several weeks after the packet mailing.

### 4.1.2.5 Participation Rates

Table 3-4 (found in section 3.3.6) shows final participation rates by institution type and control. These figures represent all sampled schools including New York supplement schools. The overall unweighted response rate was ninety three percent. Public schools, in general, were the most cooperative with response rates of ninety five or ninety six percent for all types of institutions. Private non-profit schools also had participation rates that varied little, ranging from eighty nine percent for those with programs under two years to ninetty two percent for Ph.D. granting institutions. Proprietary school participation varied from eighty six percent for schools with programs of less than two years, the lowest response rate among all types to ninety five percent for two-year institutions .

### 4.1.2.6 Refusal Handling

Although most institution refusals came during enlistment operations, refusal could come at any time during the project. In fact, three schools were classified as refusals after the site visit since they allowed data collectors to collect data only on aided students.

Schools usually refused in writing or with a phone call. Most refusals (thirty six percent) came from the president, owner, or director of an institution. Financial aid administrators accounted for thirty one percent of all refusals. The remainder of the refusals were spread across a variety of assistant administrators, managers, and vice presidents. Refusals were not accepted from receptionists or secretaries.

At least one attempt was made to convert every refusal. The first attempt was made by specially trained refusal conversion interviewers. The NPSAS scheduling supervisor reviewed the refusal and selected a refusal interviewer best suited for making the call. The supervisor then reviewed the reason(s) for the initial refusal with the interviewer, and together they planned the best way to approach the respondent. Many initially refusing institutions agreed to participate after this call.

Westat senior staff made a second attempt to convince schools to participate in the study but had little success. Of the fifty five institutions contacted by senior staff, forty four refused again, and seven of the eleven that had agreed to participate refused when contacted later for attempted scheduling.

Eleven schools had declined to participate because of confidentiality concerns. NCES staff made a third attempt to convert these schools with negligible results. Only two of these schools agreed to participate.

The majority of institutions, seventy six percent, cited more than one reason for refusing to participate. The three most common reasons fo refusing to participate were lack of staff or time to assist (thirty three percent), difficulty in scheduling this year (thirty percent), or the voluntary nature of the study (twenty-four percent). The remaining reasons varied widely--from concerns about confidentiality or study design to staff resignations.

### 4.1.3 Scheduling Institution Visits

To schedule field data collection at participating schools, schools were called and suggested visit dates were given based on an ideal schedule that had been constructed prior to the scheduling call. If necessary, a different site visit date was negotiated based on the scheduling needs of the school. Scheduling dates were confirmed with a letter to the school, a copy of which was also given to our data collectors.

### 4.1.3.1 Creating An Ideal Master Schedule

Based on information from the field test, the number of institutions to visit, the size of anticipated data collection staff, and the demands of the overall NPSAS schedule, all site visits to sampled institutions were scheduled between December 10 and January 23.

Institutions were placed in a specific geographic cluster referred to as a field group. Generally, one data collector would be responsible for collecting data from all institutions within each field group. Assignment of institutions to a particular field group was, in general, based on specific locating information (states, cities within states, boroughs within cities) and the institution's expected student sample size. The major goal was to minimize field data collector travel time. In this way, the sampled institutions were assigned to one hundred and fifty six field groups with each field group containing from one to eleven institutions.

Within each field group, preferred visit dates for each institution were selected based on the expected workload at each institution, distance between institutions, and the most feasible travel route. The preferred schedule for each field group was recorded on a scheduling calendar which showed both the starting date and the total number of days required for the visit, the latter having been based on an institution's expected student sample size and on findings from the field test that a data collector could abstract approximately twenty five records per day.

### 4.1.3.2 Scheduling Calls

In October, a training session for Telephone Research Center (TRC) interviewers who would contact participating institutions and schedule visits was held. A training manual, which provided study background information an overview of the task, a NPSAS Schedule Confirmation Guide, a Question-by Questions guide to the telephone script, and suggested response to anticipated questions was developed. This manual also served as a reference guide during the scheduling operation. The day-long training of forty TRC staff involved a thorough review of this manual and role playing activities, which simulated institution contacts and potential problems that might arise.

Beginning October 23 and continuing for four weeks, TRC interviewers contacted institution coordinators. Telephone interviewers followed a prepared script as closely as possible, but they could deviate from the script when necessary to make explanations and maintain good rapport.

The main purpose of the call was to schedule a visit to the institution for sometime during the field period. Each interviewer was assigned several field groups of institutions and was given the ideal schedules for the groups. Interviewers were instructed to stay as close as possible to the prepared ideal schedule for each field group but to be flexible and reschedule when necessary. Rescheduling was frequently necessary because of differing institution and coordinator schedules.

An additional goal of this contact was to verify information gathered during initial institution contact and to gather as much descriptive information as possible about the record keeping systems of the institution. Before discussing scheduling with the institution coordinator, interviewers asked questions regarding the location of both registrar and financial aid records and about the type of records available (computer file, cards, hard copy folders). Interviewers also asked institutions if they would like to send their Fall 1986 student enrollment lists to Westat for sampling before the scheduled field visit. If they did, they were told that Westat would be able to provide them with a list of sampled students before the field visit and which would allow them to prepare for the visit in advance. For sampling purposes, institution type, control, and enrollment were reverified and the number of graduate and professional students at the institution was obtained. To better judge the work load at the institution, the institution was asked for an estimate of aided students. Finally, the visit date and time were scheduled, the coordinator's exact office location was obtained, and information about campus security and parking arrangements was gathered.

#### 4.1.3.3 Scheduling Database

A scheduling database to be used to record information provided from telephone contact scheduling scripts was set up in in DBASE on a personal computer. The visit date, preferred time of visit, business hours, and updated information on institution address, type, control, and enrollment were entered into this system. Information on this file was later formatted to produce the visit assignment sheets that provided field data collectors with necessary information about each institution visit.

#### 4.1.3.4 Confirmation Packets

As the scheduling of each institution was completed, a confirmation packet was assembled and mailed to each institution coordinator. The packet included a cover letter, a sample Record Abstract Form, a statement of confidentiality, and a postage paid envelope. The cover letter, addressed to the coordinator, outlined the agreed upon procedures for the scheduled visit. The letter specified the date(s) of the visit and any special procedures that had been agreed upon. The Record Abstract Form was a sample copy of the form to be used for data collection at the institution. The statement of confidentiality included a cover letter from NCES specifying the authorization for collecting these data and a copy of sections of the Family Education Rights and Privacy Act which make provisions for the collection and use of such data. The Westat addressed postage-paid envelope was to be used by the institution to send samples of institutionally unique financial aid forms. These forms were later given to data collectors to help them prepare for their school visits.

#### 4.1.3.5 Rescheduling

Rescheduling was necessary throughout the duration of the field effort. Schedule changes occurred for a variety of reasons for approximately twenty percent of the sampled institutions.

All coordinators, during the scheduling operations, were given a toll-free Westat phone number and the name of one of two Westat scheduling supervisors to contact in the event that a change was necessary. When calls regarding scheduled visit dates were received at the home office, every attempt to accommodate the coordinator's preference was made. All changes were documented in writing and were also entered into the scheduling database. One copy of the update was filed and one copy was sent to the field supervisor responsible for that particular institution. The field supervisor then contacted the data collector assigned to the institution to notify him of the change.

It was also sometimes necessary for the field data collector to request a schedule change. If such a change was necessary, data collectors usually made arrangements directly with the institution upon approval of their field supervisor. Field supervisors called one of the Westat scheduling supervisors, who updated the database and files, and if necessary sent the institution coordinator a letter on the schedule change.

#### 4.1.4.6 Scheduling New York Supplement Schools

Operations staff scheduled New York supplement institutions by telephone in late January 1987 immediately after securing agreement from the school to participate. Since scheduling of these schools followed scheduling of the national sample by about three months, the field period for these institutions was extended until February 27, 1987.

### 4.1.5 Enlisting and Scheduling Professional Augmentation

Beginning in February 1987, NPSAS operations staff re-contacted 96 selected schools to solicit their participation in the professional augmentation. Prior to this telephone contact, the school summary report or enrollment list, if available, was reviewed to determine whether any clarification of school codes used on the list would be necessary for further sampling. All information contained in the institution's hard copy file was reviewed to prevent any problems or misunderstandings with the school.

Using a First-Professional Augmentation Telephone Scheduling Script, institution coordinators were recontacted to schedule a return visit to the selected institutions. During the contacts any sampling list problems, such as clarification of school codes, were resolved and contact people and building location were reconfirmed . Visits were one, two, or three days, depending on the sample size. After completing the scheduling, the beginning schedule date was written on a master schedule, an assignment update sheet was completed and filed in the institution file, and a scheduling confirmation letter was mailed to the institution coordinator. The field period for the first-professional augmentation was scheduled to end April 15, 1987.

For the seventy six participating first-professional augmentation schools, a separate database was created using DBASE on a personal computer. The database also served as a receipt system in order that first-professional receipt control not interfere with original sample receipt control from the same school. The fields in this system were Westat I.D. number, institution name, region, type, control, data collector, date contacted, date scheduled, date completed, date received, date to the data preparation area, expected sample, actual sample and institution status. The system was updated daily and an electronic memo displaying the Westat I.D. number, institution name, date contacted, status, date scheduled, and date completed was transmitted to NCES via an electronic bulletin board.

Because of the sensitive nature of asking a number of participating schools to increase their burden for the first-professional augmentation, no attempt was made to convert refusals for this component of institution data collection.

### 4.1.6 Field Data Collection

#### 4.1.6.1 Data Collection Materials

The primary data collection materials were the Record Abstract Form, the Institution Checklist, the Sampling Worksheet, and the Sample Listing Sheet (see sections 4.1.2 and 3.4.5). In addition to these forms, several other forms and materials were developed for use in institution data collection. These materials included the School Summary Report, the Disclosure Notice, and institution labels.

### School Summary Report

The School Summary Report (Appendix A-5) was a two page form which the data collector completed at the end of each site visit. The purpose of the form was to help us assess the quality of the data from an institution and pinpoint origin of problems with those data should they arise. The form recorded actual dates of the visit and any procedural or scheduling changes associated with it. It indicated whether the sample was drawn from printouts, lists, or file folders, recorded from what offices data was abstracted, and listed data that was frequently missing from files.

### Disclosure Notice

Many schools were concerned about protecting the confidentiality of student records. Therefore, the disclosure notice (Exhibit 4-1), which indicated use of a student's file for NPSAS, was developed. This notice was inserted into student files at schools which had indicated during the scheduling call that this should be done.

### Institution Labels

A set of adhesive labels, to be affixed by data collectors to all data collection documents for each institution, was produced. Printed on the labels were the institution's Westat-assigned I.D. number, the form to which they were to be affixed, and, for each expected sampled student at the institution, a sequential number. The labels were computer-generated and printed with Optical Character Recognition (OCR) character set so that incoming data could be quickly and accurately receipted using an optical wander in our receipt operation.

### 4.1.6.2 Supervisor Recruitment and Training

A well organized field operation was developed in order to facilitate field data collection. This required hiring and training field supervisors, assigning field groups, and developing a reporting system.

Exhibit 4-1

## DISCLOSURE NOTICE

## NATIONAL POSTSECONDARY STUDENT AID STUDY

Student Name: ______________________________ Date: ________________

Information from Registrar/Financial Aid records for this student has been provided to WESTAT, INC., agent for the U.S. Department of Education, Center for Education Statistics. This disclosure statement fulfills the requirements of provision 34 CFR 99.32 of the Family Educational Rights and Privacy Act (FERPA).

The National Postsecondary Student Aid Study sponsored by CES is being conducted to collect information on the conditions of education in the United States. This student has been selected to participate in NPSAS, and data from these records will be combined with others into statistical summaries and tables. No individually identifiable information will be released in any form.

## Recruitment

Based on previous experience, it was determined that each supervisor could effectively manage a group of approximately twenty data collectors. Since the study would require around one hundred and sixty data collectors, this necessitated the hiring of eight supervisors .

Although supervisors were not expected to make school visits themselves, it was still desirable to have them distributed throughout the country. This reduced the cost of telephone communication between supervisors and data collectors and aided in their recruitment efforts, as they would be likely to know potential data collectors within their own areas. Also, should situations arise which required supervisors to make school visits, it would be easier and less costly for them to do so.

All of the supervisors hired for this survey had previous Westat experience as supervisors. More than half had worked on the National Assessment of Educational Progress study, which provided experience in working with sampling and abstracting at educational institutions. All of them had some recruiting and training experience as well.

Another important consideration was the supervisors' availability during the field period. Due to the very tight time schedule of the field visits, it was imperative that all of the supervisors be available for the expected duration of the field work. Since the field period extended through the Christmas and New Year's holidays, some candidates were excluded because they could not work during this time period.

## Field Group Assignment

After three weeks of recruiting, all eight supervisors had been hired. They were distributed throughout the country, with three located on the East Coast and one on the West Coast. Based on the locations of field groups, field groups were divided into eight regions. The actual size of the regions varied considerably based on population densities, but, with one exception, all of the supervisors were responsible for from twenty to twenty-three field groups.

The one exception was the New York supervisor, who only had fourteen field groups for an area encompassing the five boroughs, Long Island, and Westchester county. This region usually presents greater difficulty than most other parts of the country, so it was decided to reduce the geographic and staff size of this region. With the exception of up-state New York, which was managed by the New England supervisor, no other regions crossed state lines. Regions appear in Exhibit 4-2.

### Supervisor's Manual

A supervisor's manual was prepared and served as their reference guide during the field effort. The manual provided information on the background of the study, field staff organization, data collector recruitment (in which supervisors would take part), overview of responsibilities, supervision procedures, and data receipt, editing, mailing, and reporting procedures.

### The Automated Survey Control System

Westat programming staff developed an Automated Survey Control System (ASCS) for the purpose of providing accurate records and reports on field work progress. The system operated on compact IBM-compatible personal computers located in each field supervisor's home office. Each PC was connected by phone lines to our main office which would allow direct transmission of reports. each supervisor was given a printer so that he/she could generate copies of his/her reports.

ASCS was a menu-driven system that created and used two databases. One database kept records on data collectors, their field group assignment, their hours (by pay period), and other items such as expenses. The second database recorded information on schools, including their name, Westat I.D. number, type, control, the scheduled visit date, date completed, and expected and actual sample size.

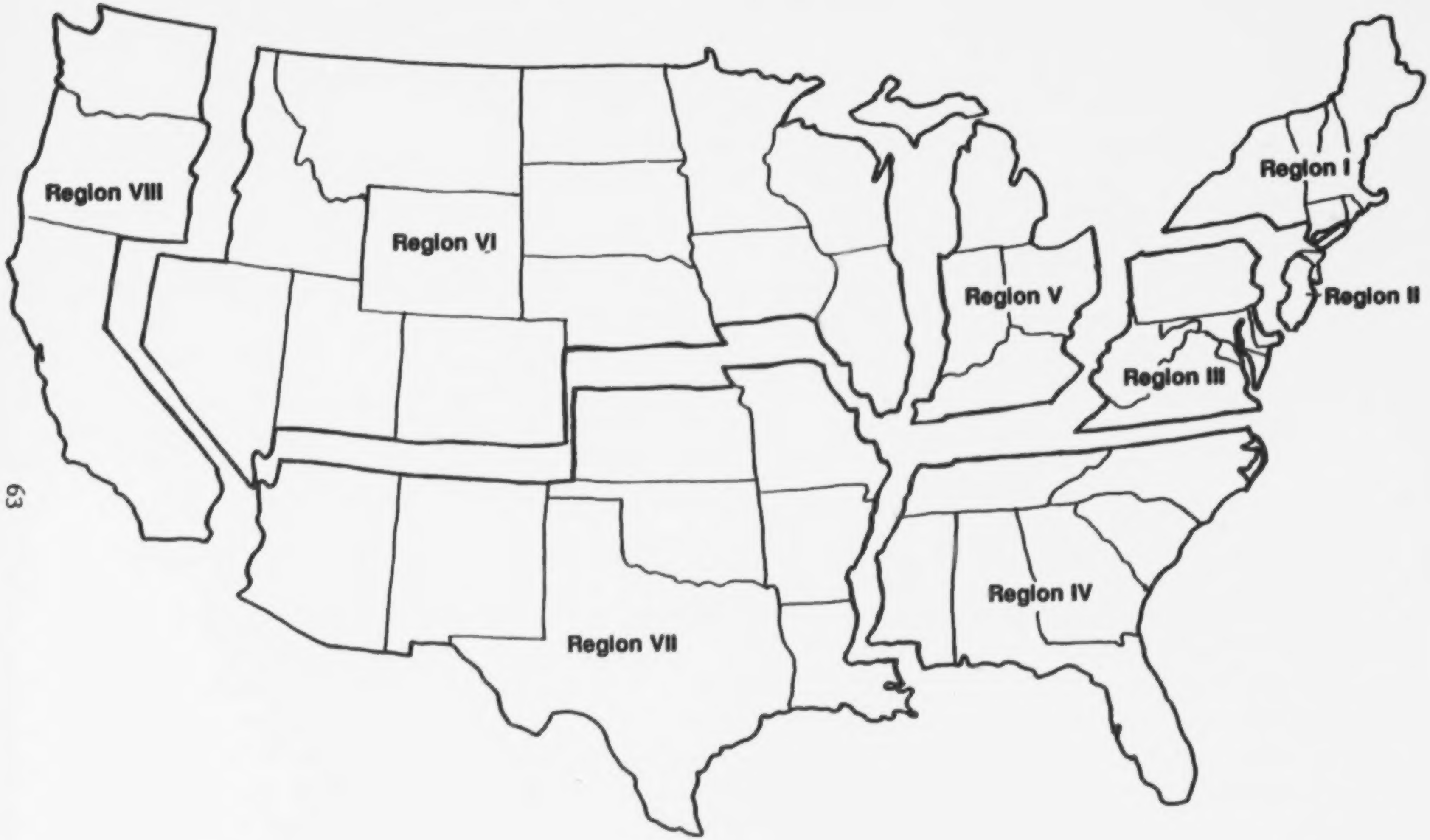

Region VIII
Region VI
Region V
Region I
Region II
Region III
Region VII
Region IV

Exhibit 4-2. Supervisor regions

Training

All supervisors attended a two-day training session held at Westat on November 24-25. Training focused on the background and purposes of the study, the forms to be used by the data collector, the data collector's sampling and abstracting tasks, the supervisors' role in reviewing and editing the completed work, and the use of the Automated Survey Control System (ASCS) for reporting. The supervisors received group and individual training on the ASCS from the Westat programmers. The training covered the creation of their files, the entering of data, and the transmission of the data to the home office.

### 4.1.6.3 Data Collector Recruitment and Training

Recruitment

The recruitment of data collectors began as soon as the field supervisors had been hired. The task was difficult because other Westat field efforts were beginning at the same time, reducing the size of the pool of eligible applicants. The field schedule, however, posed more significant problems. As with the supervisors, the data collectors were required to commit themselves for the entire field period of December and January. Also, this study differed from many other field efforts in that the data collectors had to work on a pre-arranged schedule during regular business hours. On most other studies, field staff are able to establish their own schedule, which frequently involves primarily evening or weekend hours. Both of these factors prevented the hiring of otherwise qualified staff.

Another factor which made the staffing more difficult was the requirement that the data collectors use a pre-programmed calculator to select the sample of students from each school. Although it was not necessary for them to have a thorough understanding of sampling, this requirement did discourage some potential interviewers who had "math phobia." It was also evident at the training that sampling and the use of calculators was the aspect of the study that most concerned the data collectors who had been hired.

For the most part, the data collectors who were hired came from Westat interviewer files or were known to the supervisors. In a limited number of locations, it became necessary to rely on Employment Service referrals or want ads placed in local newspapers. This occurred primarily in smaller, more isolated cities (e.g., Waco, Texas; Valdosta, Georgia; Baton Rouge, Louisiana), but was also necessary in very large cities such as New York City and San Francisco.

In all, one hundred and seventy data collectors were hired. Most of these were assigned a Field Group, with specific school assignments. Where possible, one or two additional data collectors were hired in each region to work as "travellers", that is, to be available to work at any location where extra assistance was needed. Because of scheduling changes and the need to extend some site visits, the traveling data collectors were kept busy through much of the field period. No new data collectors were hired for New York supplement or first-professional augmentation schools.

## The Field Manual

An Institution Data Collection Field Manual served as the primary training instrument and also as a reference guide for the data collectors to use during the field period. The manual covered background of the study, advance activities, confidentiality, professional ethics, instructions on preparing for institution visits, conducting field visits, quality control, and administrative procedures. The manual provided ample exhibits of the advance operations and all other relevant forms and materials. In addition, appendices contained Westat project staff telephone numbers, a short paper describing how financial aid offices work, explanations of some of the more difficult concepts used (such as standard budgets and credit, clock, and contact hours), a sample of forms that the data collectors would likely see in their visits, and a list of occupationally specific programs.

The core of the manual was question-by-question specifications for the Record Abstract Form and the Institution Checklist. Facsimiles of the two forms were annotated with detailed instructions to the data collectors on how to fill out each item. The manual also included a glossary of commonly used terms associated with financial aid.

## Other Training Materials

In addition to the Field Manual, eight written exercises were developed for trainees to complete during training to help them solidify their knowledge and to help training staff assess their progress. The exercises covered study background and advance activities, use of materials, sample selection, the Institution Checklist, Record Abstract Form, and administrative procedures. Role-play scripts were also developed so that field data collector trainees could practice the visit confirmation calls they would make to institution coordinators.

## Training

Three training sessions were held for the data collectors prior to their starting the field work. Two sessions ran concurrently in Rockville (Maryland) and St. Louis from December 2-5 for seven of the eight regions. The data collectors from the west coast region, as well as those who were unable to attend the earlier sessions, attended training in Los Angeles the following week.

Training was conducted using interactive lecture training procedures. The trainees sat at tables ("communities") with a member of the training team or a supervisor present at each table. While presenting material, the lecturer directed questions to the trainees. Between presentations, the trainees worked on exercise within their communities. This gave the trainer at each table an opportunity to observe the data collectors and answer any questions they may have had. Trainers, supervisors, and NCES representatives met regularly to discuss any areas of concern, particularly subjects that seemed to need further explanation or individuals who were having trouble with various concepts.

The training agenda appears in Exhibit 4-3. The training session for NPSAS consisted of four basic components: background on student aid programs and administration, selecting a sample of students, abstracting information from student records, and administrative procedures. The training team consisted of Westat statistical and operations staff. In addition, a financial aid officer from a local university made a presentation on the operation of a financial aid office. The field supervisors served as training facilitators.

## Exhibit 4-3. NPSAS Training Agenda - Data Collector Training

| | | Manual Section | | Presenter | |
|---|---|---|---|---|---|
| DAY 1 | | | D.C. | ST. L. | LA |
| 9:00 AM | Introduction and Welcome | | BL | DB | BL |
| 9:30 | Study Background | 1.1 | BL | MW | BL |
| 10:15 | Break | | | | |
| 10:30 | Description of Data Collector Tasks | 1.2 - 1.4 | DW | MW | DW |
| 11:15 | Overview of Advance Activities | 2.1 - 2.5 | RH | PP | RH |
| 12:00 | Lunch | | | | |
| 1:00 PM | Exercise #1 (Study Background and Advance Activities) | | RH | PP | RH |
| 1:30 | Preparing for Institution Visits | 3.2 - 3.4 | DW | MW | DW |
| 2:30 | The Assignment Packet | 3.1 | DW | MW | DW |
| 3:00 | Break | | | | |
| 3:15 | Use of the Assignment Materials | 4.1 | DW | MW | DW |
| 4:30 | Exercise #2 (Use of Materials) | | RH | PP | RH |
| 5:00 | Wrap-up and Assignment | | DW | MW | DW |

## Exhibit 4-3. NPSAS Training Agenda - Data Collector Training (continued)

| DAY 2 | | Manual Section | Presenter D.C. | Presenter ST. L. | Presenter LA |
|---|---|---|---|---|---|
| 9:00 AM | Review of Day 1 and Questions | | DW | MW | DW |
| 9:30 | Selecting the Student Sample | 4.2 | MB | DB/CW | MB |
| 10:30 | Break | | | | |
| 10:45 | Selecting the Student Sample (cont.) | 4.2 cont. | MB | DB/CW | DW |
| 12:00 | Lunch | | | | |
| 1:00 PM | Exercise #3 (Sample Selection) | | MB | DB/CW | MB |
| 3:00 | Break | | | | |
| 3:15 | General Abstracting Techniques | 4.3 | RH | PP | RH |
| 4:15 | *What are Financial Aid Offices and How do They Work? | Appendix | BL | BL | BL |
| 5:00 | Wrap-up and Assignment | | DW | MW | DW |

## Exhibit 4-3. NPSAS Training Agenda - Data Collector Training (continued)

| | | Manual Section | Presenter | | |
|---|---|---|---|---|---|
| DAY 3 | | | D.C. | ST. L. | LA |
| 9:00 AM | Review of Day 2 and Questions | | DW | MW | DW |
| 9:30 | Exercise #5 (Sampling) | | MB | CW | MB |
| 10:30 | Break | | | | |
| 10:45 | Completing the Institution Checklist | 7.1 | DW | BL | BL |
| 12:00 | Lunch | | | | |
| 1:00 PM | Exercise # 5 (Completing the Institution Checklist) | | RH | PP | RH |
| 2:00 | Introduction to the Record Abstract Form | 7.2 | DW | MW | DW |
| 2:30 | Break | | | | |
| 2:45 | Completing the Record Abstract Form | 7.2 cont. | RH | PP | RH |
| 4:00 | Exercise #6 (Completing the Record Abstract Form | | DW | MW | DW |
| 5:00 | Wrap-up and Assignment | | DW | MW | DW |

Exhibit 4-3. NPSAS Training Agenda - Data Collector Training (continued)

| | | Manual Section | Presenter | | |
|---|---|---|---|---|---|
| DAY 4 | | | D.C. | ST. L. | LA |
| 9:00 AM | Review of Day 3 and Questions | | DW | MW | DW |
| 9:30 | Exercise #7 (Institution Checklist, Sampling and Using the Record Abstract Form) | | RH | PP | RH |
| 11:30 | Close-out Procedures at the Institution | | DW | MW | DW |
| 12:30 | Lunch | | | | |
| 1:00 PM | Administrative Procedures | 5.1 - 5.3<br>6.1 - 6.4 | RH | PP | RH |
| 2:00 | Exercise #8 (Administrative Procedures) | | RH | PP | RH |
| 2:30 | Assignments | | SUPERVISORS | | |

A major portion of the training concentrated on sampling and the use of the pre-programmed calculators used to select the sample of students. The data collectors were given several exercises during training to test their understanding of the sampling procedures.

The training also covered all forms that the data collectors had to complete, especially the Institution Checklist and the Record Abstract Form. All items on these forms were defined and discussed to ensure that the field staff had a thorough understanding of the required information. Examples of student records were distributed and the data collectors practiced transferring the information from the records to the abstract form.

### 4.1.6.4 The Field Period

#### Field Assignments

At the conclusion of training, each data collector received his/her assignments. Each received calendars for the months of December and January, which indicated the starting date and the duration of each visit. Also, each data collector was given an institution assignment sheet for each school that he/she was assigned. This sheet summarized all of the information that had been collected on the institution before the field data collection period. It was computer generated from the PC scheduling database and contained contact information about the institution, date and time of appointment, who to contact, telephone numbers, directions to the school, type and control of the school, expected enrollment of students by category, expected sample size, the location of records, and any other relevant comments.

Data collectors were asked to review their assignments immediately after training. This was done to ensure that there was adequate travel time between scheduled appointments and that no other possible conflicts existed. If they did foresee any problems, they were directed to report it to their supervisors. The supervisor, in turn, would either attempt to find another data collector within his/her region who could assist or assume responsibility for that institution, or refer the problem to the Westat operations staff for further assistance. Data collectors were given several days between training and their first assignment to give them time to sort and prepare materials and make confirmation calls to the coordinators for their first assignment.

## Materials

A materials packet was made up for each field group/data collector and were sent to data collectors' homes during training. Each packet, contained data collection materials and administrative forms, and, for institutions which had sent their student enrollment lists to Westat for sampling before the field period, a list of sampled students. Field data collectors were also provided with a letter of introduction from the Department of Education in case schools requested verification of the data collector's position.

## Confirming Appointments and Preparing Materials

The data collectors' first task for each visit was to call the institution coordinator to confirm the appointment date and time that had been arranged. The field staff was directed to make these calls from three to five days ahead of the scheduled appointment. The confirmation calls served as a reminder for the coordinators (in some cases it had been two months since the original scheduling call) and served as a way to introduce the data collector to the coordinator since the school had not been informed as to the identity of the respective data collector. It also allowed the data collector an opportunity to review the materials that would be needed from the coordinator, so that the actual visit could be completed more efficiently. And, finally, the data collector was able to review the details that had been provided on the institution assignment sheet concerning the office location, the proper contact person, the provisions for parking, etc.

To prepare for visits, the data collector also went over a checklist in the field manual that listed the materials the data collectors would need when making a visit to a school. Institution assignment sheets provided the school's expected sample size so that the data collectors would know how many forms were likely to be required.

## Field Visits

Depending on the size of the institution and the size of the sample, field visits varied in length from 1-12 days. Other factors affecting the length of field visits included the manner in which records were organized (i.e., hard-copy or computerized), the number of locations in which the requested records were stored and the extent to which school staff facilitated or inhibited data collection.

## Field Edits

Data collectors were asked to edit their data collection materials before sending them to their supervisors and to Westat. If possible, they were to do this editing while still at the school to enable them to locate any information they may have missed and to check their own legibility.

When the data collector completed a school visit, the data collector mailed the top copy of the Record Abstract Form cover page and the top copy of sample listing sheets directly to Westat in prepaid envelopes. They sent Record Abstract Forms and other data collection material to their supervisor for review and processing.

## Supervisor Editing and Reporting

Supervisors reviewed and edited all materials received from data collectors. They scan-edited forms and ensured that they were complete. Field Supervisors used a transmittal form to summarize the contents of shipment packages of data to Westat. The form was printed three-page NCR paper so that one copy would be sent with the data, one copy retained by the supervisor, and one copy sent to Westat under separate cover. In this way, it was possible to track and verify data lost in the mail.

## Schools That Did Their Own Abstracting

For the Fall Records Task, only one school asked to do its own data abstraction. Forms and the question-by-question guide for the Record Abstract Form from the field manual was sent to this school. During phone contact with the institution, it was emphasized that if they had any questions or problems, project staff would be available to help at Westat's toll-free number.

Field Technical Support

Field data collectors, field supervisors, and institution coordinators could call Westat for technical assistance during the field period.

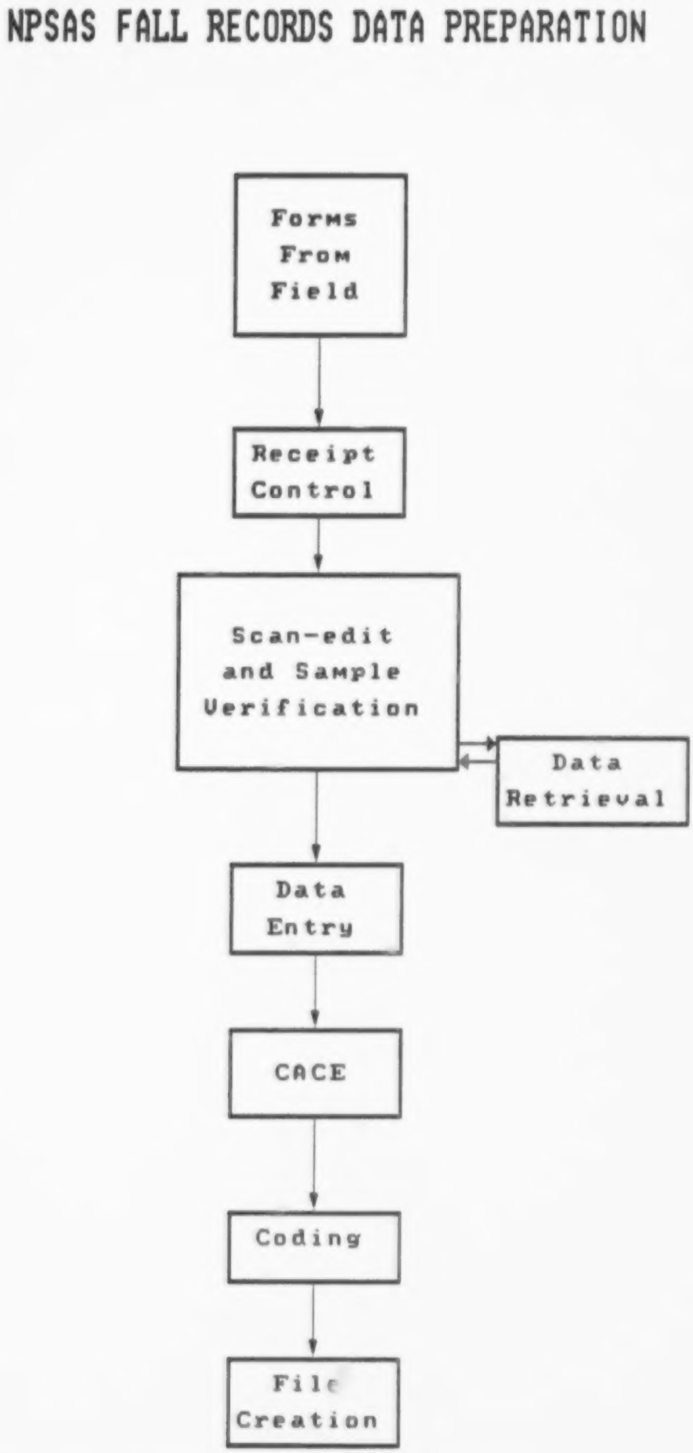
Field data collectors were instructed at training to contact their supervisors first if they encountered a problem. The exception to this rule was for sampling problems. In these instances, they were instructed to contact Westat directly. If the field data collectors were unable to reach the supervisor and they needed immediate help or if they had a sampling problem, their training manual gave them Westat's toll-free number and the names of seven project staff members. Each project staff member assumed responsibility for handling calls for one of each of three problem areas: scheduling, sampling, and cooperation. Direct telephone numbers for these staff members were also given. The same project staff also handled technical questions from field supervisors and institution coordinators.

### 4.1.7 Data Preparation

Data preparation for fall records data began with receipt of field data from data collectors and their supervisors and ended with the production of edited data on computer tapes that was ready for mass edits and final file production. Figure 4-1 shows the essential steps of the process, including scan-editing, sample verification, data entry, Westat's Computer Assisted Coding and Editing (CACE) process, and manual coding.

### 4.1.7.1 Fall Records Receipt Control System

The fall records receipt control system consisted of three files available for update through a menu. A school-level file recorded receipt date for incoming forms and batch numbers



NPSAS FALL RECORDS DATA PREPARATION

Forms From Field
Receipt Control
Scan-edit and Sample Verification
Data Retrieval
Data Entry
CACE
Coding
File Creation

Figure 4-1. NPSAS fall records data preparation

for these forms when they were ready for data entry. A student-level file documented the receipt date, batch number and batch date for the cover page and the Record Abstract Form for each sampled student. A batch file indicated for each batch number all schools handled within that batch, the number of forms and date the batch went to data entry and returned from data entry, and, for error checking, the first and last student I.D. numbers in the batch.

All receipt recording was to have been done using an optical scanner on the special labels that were produced for use during data collection. The reliability of the optical wanders, however, was not consistent because of nearby printing on the forms so that often, the receipt systems had to be updated manually.

### 4.1.7.2 Westat Receipt Processing and Scan-editing

In December 1986, three and one-half full time equivalent clerical personnel were trained for the receipt processing operation. Clerks were taught how to process incoming mail, how to use the computerized receipt control system, and how to manually scan-edit the record abstract form.

The receipt processing operation processed all data collection materials from field data collectors and supervisors. These materials included the top copies of the Records Abstract Form cover page and top copies of sample listing sheets received directly from data collectors and Record Abstract Forms, Institution Checklists, and School Summary Report from field supervisors.

When a data collector's mail package was received, the receipt date was posted on the receipt system. Clerks then checked the number of cover pages against the actual sample size given on the accompanying sample listing sheet. They also compared the cover page to the sample listing sheets for eligibility and identification number accuracy. Student and parent addresses were scan-edited for readability and completeness (city, state, and zip code) and to make sure that the address was in the USA. Clerks needed to obtain zip codes for fifty percent of the addresses and did so using a current postal zip code directory. Supervisors and operations staff resolved discrepancies and missing addresses, contacting the data collector or school, if necessary, to retrieve information.

After supervisors resolved all problems, clerks batched the cover pages in groups of a hundred. They then ran a computer program that updated the batch, school-level, and student-level receipt files with a batching date and batch number. The program also generated a batch control sheet that remained with the batch folder through the rest of the data preparation process. The forms were then sent to data entry.

Upon receipt of Record Abstract Forms from field supervisors, receipt control personnel first entered the date and number received into the receipt system. They then counted them and checked their number against the transmittal sheet and the number of cover pages that had been received from the data collector. They made sure totals were consistent and that all identifying information on the abstract form matched the cover page. Discrepancies went to supervisors and operations staff for resolution. On completion of these checks, clerks batched the forms in groups of fifty and prepared them for data entry.

The School Summary Report and Institution Checklist were also posted as received on the receipt system. School Summary Reports were filed by Westat institution I.D. for reference in handling problems of data quality. A few data items from the Institution Checklist were keyed, including school calendar and grade point system. These data items would later be used for scaling grade point and credit hours for the final file and for the development of a special institution file.

#### 4.1.7.3 Data Entry

Data entry was handled by data entry subcontractors and Westat's data entry facilities. Data entry included complete double-keying verification. One machine readable file was requested for each batch of forms. This allowed a maximum level of control and verification with minimal effort needed to recover errors.

When batches of forms were returned, staff manually checked for missing forms using the batch control sheets and updated the receipt system to indicate that forms had returned from data entry. The forms control manager also checked the batch folders against the accompanying data tape labels to verify that all of the batches were indicated on data tape labels. The forms control manager then logged the tapes on a control sheet showing data received, tape identification number, and the numbers of the batches on the tape label.

### 4.1.7.4 Computer Assisted Coding and Editing (CACE)

CACE is a computer assisted coding and editing system developed by Westat to support interactive editing and coding of questionnaire data. CACE is written in the C programming language and operates on our VAX cluster as well as on IBM personal computers. CACE is designed to allow the interactive resolution of range and logic checks on a flow basis, form by form. Consistency checks are performed between data fields, interactively, for a particular questionnaire, thus identifying any additional range and logic errors generated by the corrections. The result is a more reliable and less time-consuming editing process, as the operator is able to resolve multiple errors on a particular questionnaire at once. CACE maintains an audit trail of all changes and allows for priority level for authorizing them.

When the data tape was returned from data entry, it was loaded into the CACE system. Using CACE, trained staff made changes when possible and overrode problem data when they could not change or delete it. A one-day training session was held in January 1987 with eleven and one-half full-time equivalent for CACE-coding personnel. For several weeks after training, each coder's work was verified.

In general, CACE checked all fields to ensure that numeric fields did not contain any alphabetic or special characters, checked that each field contained only allowable codes, checked that all skip instructions on the form had been followed correctly, and checked "total" fields for correct amounts.

### 4.1.7.5 CACE Verification

A number of smaller operations were undertaken to prepare data for the file building operation and mass edits. CACE-edited out-of-range values and logic changes were manually verified to assure accuracy.

## 4.2 Fall Records Update

### 4.2.1 Data Collection

#### 4.2.1.1 Overview and Schedule

Fall records data collection collected data for each sample student from registrar and financial aid office records between December 1986 and March 1987. The registrar data provided information necessary to locate respondents for the student and parent surveys and with general student characteristics. The financial aid office data, however, reflected financial aid awards made as of the time of data collection. Since award amounts often change during the academic year, the fall financial aid data were updated at the end of the 1986-87 academic year. This updating effort, called the Student Financial Aid Record Update Task, began in August and continued through December of 1987.

#### 4.2.1.2 Development of Data Collection Materials

The Student Financial Aid Records Update Form

The Student Financial Records Update Form was designed to provide each institution with the opportunity to verify, correct, or update every financial aid award type and amount for all of the 59,886 students in the NPSAS sample. A separate form was produced for each student. Items on the update form included all financial aid categories and selected student characteristics and student family information from the fall Record Abstract Form as well as two additional items: the veteran status of the student and the actual amount earned through the College Work-Study Program. For each fall Record Abstract Form item that was included on the update form, three types of columns were provided. The first column, called "RECORD ABSTRACT INFORMATION" contained the previously abstracted fall records data value. The middle column, titled "NO CHANGE IN RECORD ABSTRACT INFORMATION", contained a box to be checked if the coordinator determined that no change had occurred since the original abstracting. The last column, "UPDATED FINANCIAL RECORDS INFORMATION", provided space for updated information on award amounts and length of awards to be recorded.

Once the design of the Student Financial Records Update Form and the items to be included on the form were set, Westat programmers created a data tape. Many schools provided a school-assigned student I.D. number. When available, this number was included on the form. In cases where such a number was not provided, the student's social security number was entered in this data field.

After the data tape was prepared, a print file was created that included a formatted individual form for each student. Data items that were dollar amounts were reformatted to appear on the form preceded by " $ " signs and with appropriate commas, making the data easier to read and verify. All financial aid and relevant student family data were reformatted to flag any data values which were determined to be out-of-range during the Records Abstract editing process. In these cases, an asterisk was appended to the data value, thus highlighting the need to examine the items even more closely during the update process. Finally, any missing, blank, or "0" data values were reformatted on the update form as "NOT REPORTED". Since each form consisted of six pages, the student's NPSAS ID number was printed at the bottom of each page to allow recovery if pages became detached.

The forms were printed on a Xerox laser printer. The 59,886 six-page forms were printed in a three day period. Additional copies of forms were printed throughout the field period when needed due to loss or misplacement of forms by schools.

### 4.2.1.3 The Control List

A control list containing summary information on the sample students was produced for each institution. The list contained the NPSAS ID number, the student's name, either the school-assigned student ID or the social security number, and whether or not the student was considered aided or not aided based on the earlier abstract information. In response to requests by some institution coordinators who used the social security number as the primary student ID, a second version of the control list, in sort order by student name and by social security number, was produced.

### 4.2.1.4 The Advance Packet

Since it had been several months since the institutions had participated in the NPSAS data collection, an advance packet of materials providing a clear task description and outlined participation requirements for the NPSAS institution coordinators was sent to each institution. This packet contained a cover letter from the Westat NPSAS National Field Director describing the packet contents and providing toll-free numbers to call for technical assistance, a letter from NCES introducing the task and asking for the institution's continued support, a letter from the National Association of Student Financial Aid Administrators, endorsing the update task and encouraging the institution's participation, a copy of the Control List for that institution which contained the names and I.D. numbers of the students in the NPSAS sample, a draft copy of the Student Financial Records Update Form (with no data shown), and a set of instructions for completing the Student Financial Records Update Forms.

All packet materials were printed on the appropriate letterhead and were assembled in early August, 1987.

### 4.2.1.5 Institution Contacts

During the course of the Student Financial Records Update task it was necessary to contact institutions several times: to explain the task; to ensure that the materials had been received; to provide technical or staff assistance; or to followup nonresponding institutions. Table 4-1 shows the average number of followup attempts and contacts (not counting the initial advance and forms mailings) necessary to complete this task. Some of these contacts were due to the fact that "things change constantly" at most postsecondary schools. Of the 1,074 institutions in the sample, five had changed their name and twenty-two had changed their address by the time of the update. Another ten had gone out-of-business altogether. Also, one hundred and ninety of the former NPSAS institution coordinators were no longer available, and a new coordinator was appointed by the school.

Table 4-1. Average number of initial contacts, followup attempts and total number of coordinator changes per institution, by control and level of institution

| Control and level of institutions | Total Number of institutions | Total coordinator changes | Average number of followup attempts | Average number of initial contacts |
|---|---|---|---|---|
| Total | 1,074 | 190 | 3.0 | 2.6 |
| **Public** | | | | |
| Total | 447 | 69 | 3.1 | 2.5 |
| 4-year doctoral | 109 | 16 | 3.7 | 2.8 |
| Other 4-year | 97 | 14 | 3.2 | 2.5 |
| 2-year | 185 | 28 | 2.2 | 2.0 |
| Less than 2-year | 56 | 11 | 3.2 | 2.7 |
| **Private** | | | | |
| Total | 323 | 51 | 2.8 | 2.4 |
| 4-year doctoral | 128 | 24 | 3.5 | 2.9 |
| Other 4-year | 119 | 13 | 2.4 | 2.2 |
| 2-year | 56 | 10 | 2.1 | 1.9 |
| Less than 2-year | 25 | 4 | 3.2 | 2.5 |
| **Private - for profit** | | | | |
| Total | 304 | 70 | 3.3 | 3.0 |
| 2 years or more | 78 | 16 | 3.3 | 3.1 |
| Less than 2 years | 221 | 54 | 3.3 | 2.9 |

### 4.2.1.6 Advance Mailing

To begin the update task, the advance packets were sent to each of the 1,074 participating NPSAS institutions. This mailing was completed during the week of August 19, 1987. Care was taken to group materials for institutions that previously had the same owner or coordinator. The purpose of the packet was to familiarize the institution coordinators with the upcoming task, to give them the opportunity to begin locating records for the sample students, and to allow them some time to call with technical questions or staffing changes. Revisions to the institution contact file began as advance packets were returned by the postmaster. Revisions continued as calls were received from NPSAS institution coordinators or school administrators requesting further information about the study or notifying Westat of new institution addresses and coordinators.

### 4.2.1.7 Forms Mailing

Approximately two weeks after the advance packet mailing, during the first week of September 1987, the forms packets were mailed to the institutions to begin the updating process. The forms packets contained a cover letter from the Westat NPSAS National Field Director describing the contents of the package and, again, providing a toll-free number to call for technical assistance, another copy of the Control List that had been included in the advance packet, another copy of the instructions for completing the Student Financial Aid Records Update Forms, a Student Financial Aid Records Update Form for each student listed on the control list, and instructions for returning the completed forms to Westat (including a postage-paid mailing label).

The forms were packed in envelopes or boxes depending on the number of students in the sample for a particular institution (this number ranged from two to five hundred and sixty seven). All packages were sent to the designated institution coordinator with some coordinators receiving packages for several related institutions. Coordinators were instructed to return all forms to Westat even if no updates were necessary and were asked to return them "as soon as possible".

### 4.2.1.8 Technical Assistance

On all correspondence sent to the institutions and during the course of every telephone contact, institution coordinators were provided with a toll-free number to call if they had questions concerning the update task in general or specific problems in completing the forms. Westat operations staff were available to answer questions about specific data items and, in several instances, "walked-through" the entire update process with inexperienced coordinators. A total of one hundred and twenty-one institutions called to request technical assistance, and several called up to three times. Technical assistance was also provided during Westat-initiated contacts, such as during non-response followup calls. All calls were documented on a Contact Summary Form and retained in the institution contact folder. Any calls requesting authorization or policy clarifications were referred to NCES staff.

### 4.2.1.9 Telephone Prompt

Based on the number of changes in coordinators and institution addresses discovered as a result of the advance packet mailing, it was decided that all institutions should be contacted by phone to ensure that the forms package was received. Therefore, two weeks after the mailing of the forms packages, a telephone prompt operation began. Between September 14 and October 2, 1987, calls were made by Westat's Telephone Research Center to approximately 1,043 institutions (thirty one institutions had returned their completed forms before the prompt began). Interviewers were given institution contact information on an institution information sheet and were trained to use the Telephone Prompt Script to record the results of their calls. The main purposes of the telephone prompt were to determine whether or not the materials had been received by the correct person (or at all) and to obtain a target date for the return of the completed forms. If the institution reported not receiving the forms or misplacing them, arrangements were made to remail the forms. If a coordinator seemed hesitant about completing the forms or complained about lack of staff or time, the possibility of some alternative arrangements were discussed. For information purposes coordinators were asked if it would be possible to receive the completed forms earlier with a reimbursement for staff time or the assistance of a Westat data collector. These options were also discussed with the institutions during subsequent nonresponse followup calls.

### 4.2.1.10 Non-response Followup

As target completion dates were agreed to by institutions during the telephone prompt, they were entered into the operation's receipt system. Each week a listing was produced containing the name, institution id, and target date for all institutions not yet received. This listing was scanned, and all institutions more than one week late were recontacted by phone. The purpose of this call was to determine if progress was being made on completing the forms, to offer assistance if it seemed necessary, and to schedule a new target date. These calls were made by Westat operations staff and NCES staff members and were documented on the Target Date Revision Form. The number of different target dates per institution ranged from zero (for those institutions returning their forms before the telephone prompt began) to a high of five. Of the participating institutions, two hundred and sixteen institutions required two or more different target dates before returning their forms.

### 4.2.1.11 Special Arrangements

Initially, institutions were encouraged to complete the updating process themselves to ensure an accurate representation of their records. It was anticipated, however, that not all institutions would have the resources to complete this task within the scheduled time period. To discourage non-participation due to time or staff constraints, schools were given two options. Reimbursement would be given to the institution for time spent by a regular employee (usually overtime) or a student hired specifically for this task, or a data collector would be sent to visit the institution for the purpose of completing the forms for the institution.

The desirability of these options was discussed with the institutions initially during the telephone prompt calls. These options were actually offered to the institutions during the nonresponse followup calls. During the course of these followup calls, three different interview guide forms were used (Exhibits 4-4 through 4-6). The first two forms were used to document the needs of the institution, and the third form was used to assess the availability of a particular data collector to accept and complete the assignment on schedule.

Exhibit 4-4. Assistance requested form

## NPSAS RECORDS UPDATE TASK
## ASSISTANCE REQUESTED FORM

INSTITUTION NAME: ______________________________ ID: ____________

COORDINATOR NAME: ______________________________ PHONE: __________

THESE INSTITUTIONS HAVE MENTIONED THE NEED FOR ASSISTANCE DURING THE TELEPHONE PROMPT. FIRST, DETERMINE IF ASSISTANCE IS STILL NEEDED. THEN, AGREE ON THE TYPE OF ASSISTANCE AND A TARGET COMPLETION DATE.

1. IS ASSISTANCE STILL NEEDED? YES ☐ NO ☐

2. WHICH TYPE OF ASSISTANCE IS PREFERRED? REIMBURSEMENT ☐
   DATA COLLECTION ☐

   - ASK FOR TITLE AND USUAL HOURLY WAGE OF PERSON COMPLETING THE WORK.

     TITLE: ______________________________

     HOURLY WAGE: ______________________________

   - INFORM THEM THAT DIANE WARD WILL BE GETTING BACK TO THEM SOON TO DISCUSS BILLING RATES AND PROCEDURES.

4. IF DATA COLLECTION REQUESTED:

   - ASK IF THEY WOULD LIKE US TO SEND THE SAME DATA COLLECTOR AS LAST TIME.

     YES ☐ NO ☐ DOESN'T MATTER ☐

     IF NO AND A REASON IS OFFERED, PLEASE RECORD: ______________________________

     ______________________________________________________________

   - ASK IF THERE IS A TIME BETWEEN MID-OCTOBER AND MID-NOVEMBER WHEN IT WOULD BE OUT OF THE QUESTION TO SEND SOMEONE.

     YES ☐ BAD DATES: ______________________

     NO ☐

     INFORM THEM THAT THE DATA COLLECTOR WILL BE CALLING THEM TO ARRANGE AN APPOINTMENT.

COMMENTS: ______________________________________________________________

RECORD OF CALLS: ______________________________________________________

RESOLVED BY: ______________________________ DATE____________

## Exhibit 4-5. Reimbursement confirmation form

### NPSAS RECORDS UPDATE TASK
### REINFORCEMENT CONFIRMATION FORM

INSTITUTION NAME: ______________________ ID: ____________

COORDINATOR NAME: ______________________ PHONE: __________

INFORM THE COORDINATOR THAT WE ARE CALLING REGARDING ARRANGEMENTS FOR REIMBURSING A MEMBER OF THEIR STAFF FOR HOURS SPENT COMPLETING THE UPDATE FORMS FOR THE NPSAS SSTUDENT FINANCIAL RECORDS UPDATE TASK.

1. VERIFY THE PREVIOUSLY DISCUSSED HOURLY RATE.

The hourly rate we agreed to earlier was (________). Is that correct?

YES ☐ NO ☐ (EXPLAIN BELOW)

EXPLANATION AND NEW RATE: ______________________

______________________

______________________

2. VERIFY PAYMENT ARRANGEMENT.

Would you prefer that the worker be paid direrctly or would you like us to reimburse your institution for paying the worker?

REIMBURSE WORKER ☐ REIMBURSE INSTITUTION ☐

3. DISCUSS PAYMENT PROCEDURES.

In order to make arrangements for you to be reimbursed, we need to receive a memo from you addressed to DIANE WARD. This memo should contain the following information.

- The name of the person completing the work;
- The complete mailing address of this data collector;
- The data collector's social security number;
- The hourly rate agreed upon; and
- The total number of hours worked.

RECORD OF CALLS: ______________________

______________________

RESOLVED BY: ______________________ DATE ____________

## Exhibit 4-6. Data collector recruiting form

### NPSAS RECORDS UPDATE TASK
### DATA COLLECTOR RECRUITING FORM

INSTITUTION NAME: ______________________ ID: __________

COORDINATOR NAME: ______________________ SAMPLE SIZE: ______

POSSIBLE DATA COLLECTORS:

1. NAME: ______________________________
   CITY: ______________ STATE: ________ ZIP: ________
   PHONE #: ______________

2. NAME: ______________________________
   CITY: ______________ STATE: ________ ZIP: ________
   PHONE #: ______________

---

1. INFORM THE DATA COLLECTOR THAT WE ARE CALLING REGARDING THE UPDATE PHASE OF NPSAS AND ASK IF SHE/HE WOULD BE AVAILABLE TO COMPLETE THE UPDATES AT (INSTITUTION NAME) BEFORE THANKSGIVING.

   YES ☐ (CONTINUE) NO ☐ (TRY NEXT DC)

2. TELL THE DATA COLLECTOR THAT WE ARE SENDING MATERIALS IN ADVANCE AND THAT THEY SHOULD CALL US AS SOON AS THEY RECEIVE THESE MATERIALS. (800-937-8281).

3. INFORM THE DATA COLLECTOR OF ANY "BAD DATES" REPORTED BY THE INSTITUTION COORDINATOR AND ADVISE HIM/HER OF THE SAMPLE SIZE TO BE COMPLETED.

4. REVIEW ADMINISTRATIVE PROCEDURES WITH THE DATA COLLECTOR, SUCH AS TIME SHEET DUE DATES, TRAVEL ARRANGEMENTS, ETC.

COMMENTS: ______________________________

______________________________

RECORD OF CALLS: ______________________________

______________________________

RESOLVED BY: ______________________ DATE __________

Of the 1,062 participating institutions, forty one requested reimbursement and thirty four required data collectors. Table 4-2 shows the distribution of these institutions by type and control. All data collectors for the update task had previously worked on the initial institution data collection and were, therefore, familiar with the study and data to be updated. Data collectors were provided with the same written instructions for completing the forms that were sent to the institutions, along with a memo detailing potential areas of special concern . These materials were reviewed with the data collectors by phone before they began their update assignments. Institutions asking for reimbursement were asked to provide the name and title of the person who would be completing the update and the normal hourly wage for that person. Once approved, billing instructions were given to the institution coordinator.

A third type of special arrangement that was not in the original plan was telephone data collection. This method was used for six institutions during the final days of the data collection period. To accomplish this, a Westat operations staff member used a copy of the update form for the particular institution to record data as the institution coordinator referred to student files. The sample size at these institutions ranged from two to sixteen students.

### 4.2.1.12 Other Procedures

During the course of telephone prompt and non-response followup contacts with institutions, it was occasionally discovered that the forms had never reached the institution or that the institution had misplaced the forms. This required reprinting of update forms and remailing to institutions. For the most part, the reprints were ordered from the printing vendor on an as-needed basis. However, three weeks prior to the scheduled closeout date for the task, forms for all outstanding institutions were reprinted in order to have them available for immediate express mailing if necessary. Update form packets were remailed to a total of seventy four institutions and documented on the Remail Request Form.

Occasionally, packets of completed forms arrived from institutions with one or more forms missing. These cases were reported on a weekly basis to the operations staff by the data preparation group. An operations staff member recontacted the institution to attempt to complete the missing forms by phone. This process continued throughout the course of the data collection period.

## Table 4-2. Institutions reimbursed or completed by Westat data collectors, by control and level of institution

| Control and level of institutions | Data collector | | Reimbursement | |
|---|---|---|---|---|
| | Institutions | Students | Institutions | Students |
| Total | 35 | 3,470 | 40 | 4,910 |
| **Public** | | | | |
| Total | 15 | 1,506 | 17 | 2,266 |
| 4-year doctoral | 7 | 767 | 11 | 1,544 |
| Other 4-year | 4 | 549 | 2 | 522 |
| 2-year | 4 | 190 | 3 | 131 |
| Less than 2-year | 0 | 0 | 1 | 69 |
| **Private** | | | | |
| Total | 14 | 1,813 | 19 | 2,542 |
| 4-year doctoral | 7 | 1,450 | 8 | 1,328 |
| Other 4-year | 4 | 264 | 8 | 1,036 |
| 2-year | 3 | 99 | 1 | 60 |
| Less than 2-year | 0 | 0 | 2 | 118 |
| **Private - for profit** | | | | |
| Total | 6 | 151 | 4 | 102 |
| 2 years or more | 2 | 58 | 0 | 0 |
| Less than 2 years | 4 | 93 | 4 | 102 |

### 4.2.2 Data Processing

#### 4.2.2.1 Data Receipt and Preparation

Student Financial Records Update Forms were returned from the institutions beginning in October, 1987. Figure 4-2 shows the percent of institutions and forms received each week during the data collection period.

#### 4.2.2.2 The Receipt System

As forms were received, the institution ID was entered into the institution receipt control system. The forms were then counted and compared to the original control list to ensure that the institution had returned the correct number of forms. Discrepancies found in this process were referred to the operations staff for data retrieval. The date and number of forms received was entered into the student receipt system. As forms were batched for data entry, the student ID and batch number were entered into the batch control system.

#### 4.2.2.3 Preparation and Data Entry

All forms returned by an institution were scan-edited. Updates were highlighted to make it easier for the data entry staff to quickly and accurately locate and key data. Problems related to the updated information, such as illegible writing, were referred to the receipt/editing supervisor. Any problems not resolved by the supervisor were referred to the operations staff for data retrieval contact with the institution. Forms with updated information were sent to data entry to be keyed and verified. Keyed data were received on a flow basis and checked for ID number corrections again the receipt system files. Corrections were made as necessary and final range and logic checks to verify data entry accuracy were completed.

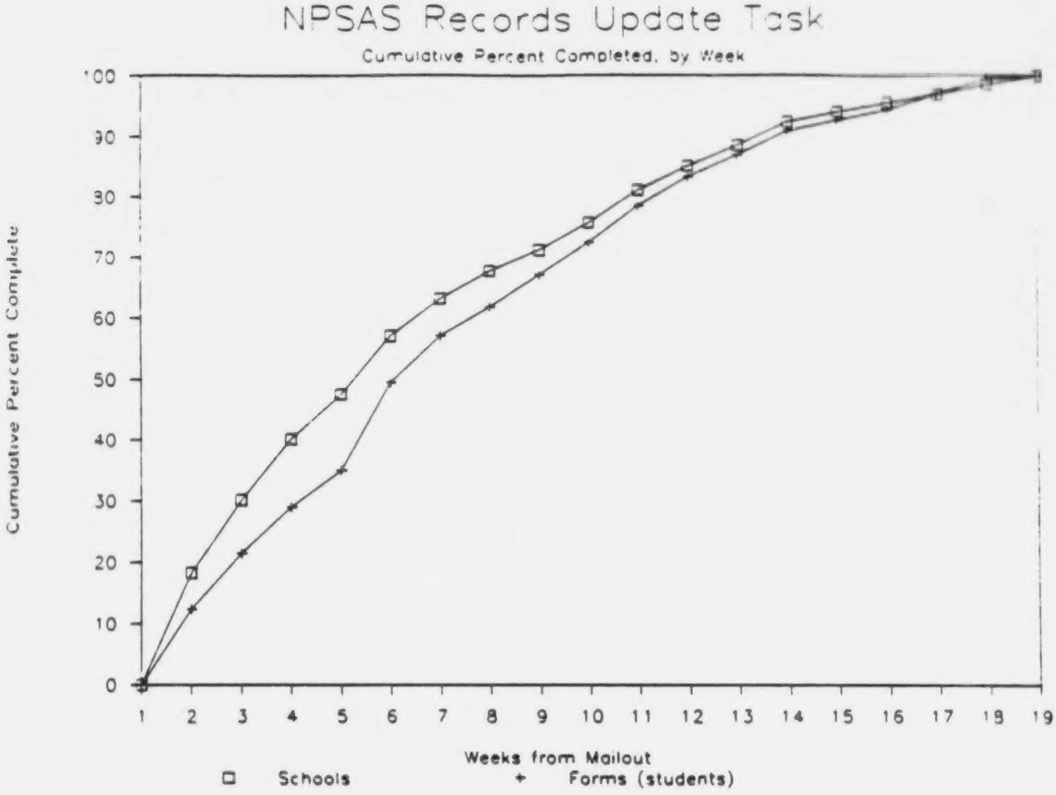


Figure 4-2. Percent of institutions and forms received by week

### 4.2.3 Updating of Fall Records Data File

#### 4.2.3.1 Computer Updating of the Fall Records Data

The updates and corrections data received from institutions was applied to the NPSAS Fall Records Data File through a computerized updating process. This process involved three phases summarized in Figure 4-3.

In the first phase the *records update file* with one record per student per item was converted into a *student update file* with one record per student containing the institution reported corrections or updates. The format of this file was the same as the fall records data file.

In the second phase the *fall records file* and the *student update file* were read by the update program in order to replace original fall records values with updated values where appropriate. This program included extensive logic to perform edit checks to the updated values. This assured that the updated values were edited according to the same extensive range and inter-item consistency (logic) checks used previously to edit the fall records data. Two files were produced, an updated fall records file and a journal file recording all updates in detail, including old and new values for updated items and a flag describing the nature of the update.

In the third phase the results of the update were evaluated using the journal file and the updated fall records data file. This evaluation included examining each case where there were unusually large changes in data values, a statistical assessment of the update by comparing the distributions of original and updated values, and an analysis of school-level patterns of updating to detect systematic reporting biases within schools.

Approximately five iterations of the second and third phases were required to refine the update program in order to take all contingencies into account. The updated fall records data file was delivered to NCES in early April, 1988.

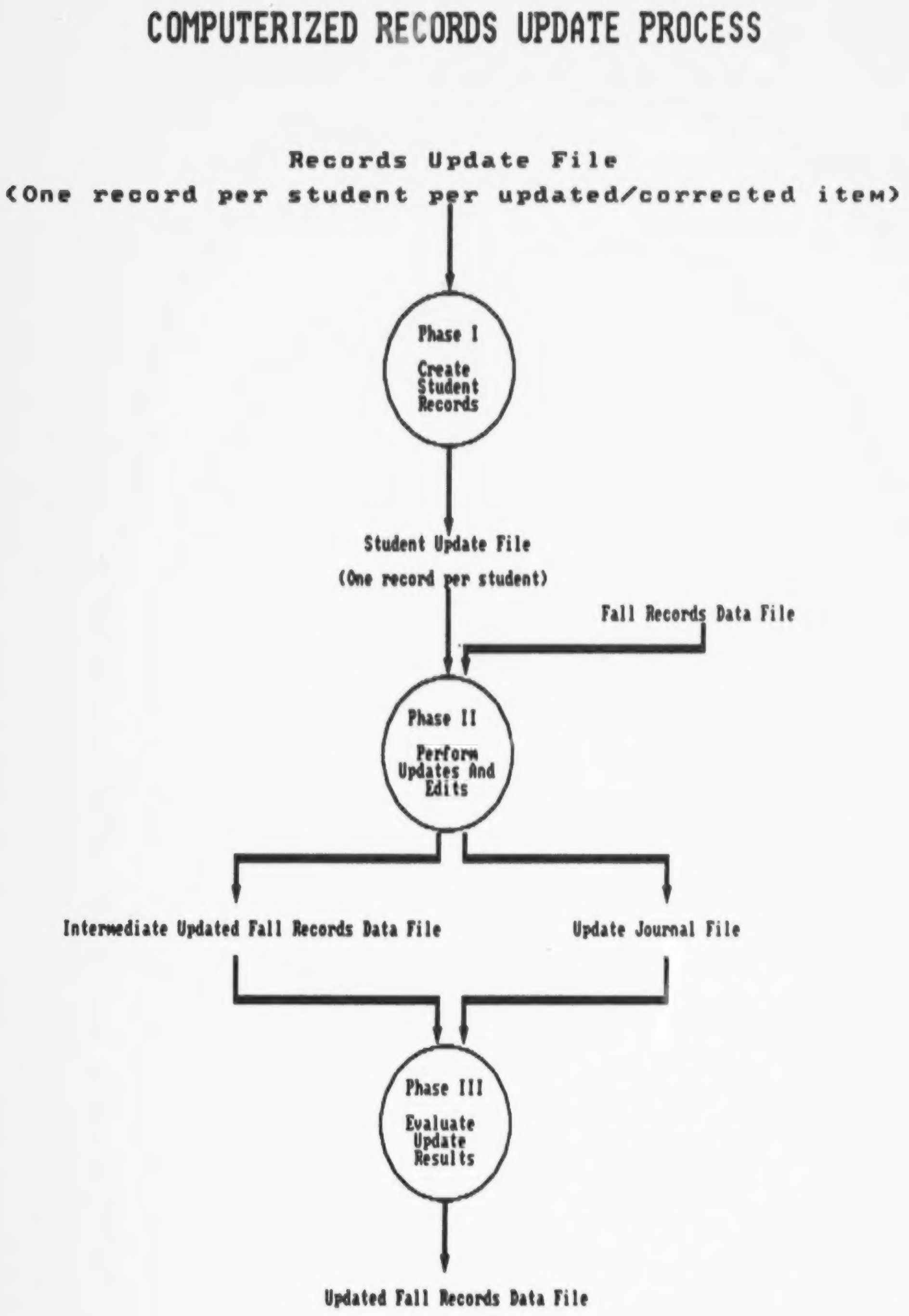

COMPUTERIZED RECORDS UPDATE PROCESS
Records Update File
(One record per student per updated/corrected item)
Phase I
Create Student Records
Student Update File
(One record per student)
Fall Records Data File
Phase II
Perform Updates And Edits
Intermediate Updated Fall Records Data File
Update Journal File
Phase III
Evaluate Update Results
Updated Fall Records Data File

Figure 4-3. Computerized records update process

### 4.2.4 Response Rates

The final response to the Student Financial Records Update Task was very high. Only two institutions refused to participate citing lack of staff/time as their main reason. Ten institutions had closed between the earlier institution data collection and the update task.

# 5. STUDENT SURVEY

## 5.1 Objectives and design

The student survey collected self-reported data on student education, school costs, earnings, sources of funds, decisions on school financing, and student knowledge of financial aid programs. For unaided, independent students, the survey was critical for obtaining information on their financial characteristics. Since these students had no institutional financial aid records, this information could not be obtained during Fall Records data collection.

To assure the highest possible response rate, the student survey was undertaken first as a mail survey and then as a phone interview with mail survey non-respondents.

## 5.2 Forms Development

### 5.2.1 Student Mail Questionnaire

The 1987 NPSAS Student Questionnaire (Appendix A-6) was a substantially revised and expanded version of the field test instrument. Whereas the field test survey was eight pages with thirty two questions, the final version was twenty seven pages and required over one hundred responses. In particular, sets of questions on the student's current activities and work history were added. The survey was also expanded to ask for more complete information from students who attend vocational or occupationally specific programs.

Student Questionnaire design began in early September 1986 and ended in mid-February 1987. Within this period, the questionnaire went through fourteen drafts. Review and design sessions were conducted with consultants, the Steering Committee, various work groups, and the NPSAS Advisory Group. Consultants who could provide particular expertise in certain areas of analysis or questionnaire construction were chosen for this review and revision of the questionnaire.

The final version of the survey had four sections: Your Activities Last Fall, Current Activities, Meeting Your Education Expenses, and About Yourself. It had seventeen skip patterns, with eight of these nested within other skip patterns. The printed survey booklet included a letter from NCES about NPSAS and a set of instructions. The back cover included a space for a mailing/identification label that would be visible through a window envelope.

The questionnaire was pretested on a small number of students attending institutions of varying type and control in the Washington, D.C. area.

The final draft of the Student Questionnaire was submitted for FEDAC/OMB review on December 12, 1987. The Office of Management and Budget recommended several changes, among them renumbering questions on the instrument. A revised version of the form was submitted for final approval, which was received in January. After OMB approval, some minor formatting changes, which did not change the substance of the questionnaire, were made.

### 5.2.2 Student Telephone Questionnaire

In March 1987, Westat Telephone Research Center (TRC) staff restructured and reworded the mail survey to make it appropriate for use as a telephone survey (Appendix A-7).

The survey was reorganized to better focus the telephone respondent's attention and increase recall and accuracy of response. Instead of the mail survey's four sections, the telephone survey had seven sections: Fall Enrollment Characteristics, Spring Enrollment Characteristics, School Expenses, Meeting Education Expenses, Work and Earning History, Demographics, and Choice Questions. The final section, "Choice Questions", contained survey questions about the student's choice of school and reasons for applying or not applying for financial aid. Each section on the phone survey was typically prefaced by a general statement about it that the interviewer would read to the respondent.

Most questions on the phone survey were word-for-word adaptations of the mail questionnaire. All mail survey questions were reviewed and reworded, as necessary, to allow interviewers to administer the survey in a direct conversational manner or to allow better emphasis of certain elements in a question. For example, a question which on the mail survey read, "Toward which degree or other certificate/award were your fall courses leading?" appeared on the telephone survey as, "Last fall, toward what degree, certificate or award were your courses leading?" thus allowing the question to flow and emphasizing that the question was referring to fall activities.

In addition to such changes, skip patterns and other mail survey instructions had to be transformed into interviewer instructions. Since the telephone survey was administered later in the year than the mail survey, all mail survey questions including the word "currently" were changed to "Last Spring" or "last April".

A questionnaire prompt was also developed to go with the survey. Interviewers used this prompt at the beginning of each student interview to learn whether administration of the survey was appropriate at this time. The prompt first introduced the interviewer as a representative of the U.S. Department of Education and asked the student if he/she had received the mail survey and returned it to Westat. If the student said that he/she had mailed the survey, the approximate date of the mailing was obtained and the student was thanked. If the student had not received the survey or had not mailed it back the purpose of the survey was explained and the student was asked if the survey could be completed over the phone. If the student agreed, the survey was administered at this time. If the student preferred to be surveyed at another time, the interviewer scheduled an appointment to call again. If the student wanted a (another) copy of the mail questionnaire or said that he/she would send it in, interviewers gave the student a special code for survey mailing or future tracking. Those students who refused to do the survey were asked for a reason for their refusal.

In addition to this prompt, special prompts were inserted for students whose mail survey had been returned by the postal service as undeliverable. These prompts informed the student that Westat had been unable to contact him or her by mail.

## 5.3 Student Mail Survey Operation

### 5.3.1 Survey Mailing

Survey mailing was originally scheduled to begin in early February 1987 but delays in instrument development caused the survey mailing to be postponed until mid-March.

Each student received an initial mailing followed in two weeks by a mailgram. In three weeks, survey non-respondents received a second copy of the survey. Three weeks later, non-respondents received a second mailgram.

The initial mailing consisted of a survey, a letter from the U.S. Department of Education, a brochure on the National Postsecondary Student Aid Study, and a student guide to federal financial aid programs. In addition, the majority of students received a small battery-powered calculator as an inducement to complete the survey. The second mailing consisted of the survey, the original letter from the U.S. Department of Education, and an additional letter from the U.S. Department of Education that referenced the first mailing and emphasized that the student's participation in the survey was essential to the success of the study. The second mailing did not include the brochure, student aid guide, or calculators. The mailgrams (Exhibit 5-1) contained a short text from the U.S. Department of Education that urged participation in the study.

All student mailing addresses had been obtained during Fall Records data collection. Since Fall Records data collection continued through May 1987, student surveys were mailed in six successive waves from mid-March through June 1987. Exhibit 5-2 shows the student survey mailing schedule and the number of students targeted with each mailing. Since field data collectors had completed the bulk of Fall Records data collection by the end of January, about 80 percent of the students were included in the first mailing wave. Successive waves were increasingly smaller except for the final wave, which contained students from several large schools that refused to participate in NPSAS until May. Students in the final wave were to late to become part of the mail survey operation. Instead they received just an advance letter indicating that they would be contacted in the near future and asking some questions about their education activities during the past year.

Exhibit 5-1

NPSAS
P.O. BOX 10428
ROCKVILLE, MD 20850 25AM

Western Union Mailgram

1-099101U115 04/25/87 ICS WA16614
00004 MLTN VA 04/25/87 JN28055

GTHA :

WESTAT
DIANE WARD
1650 RESEARCH BLVD.
ROCKVILLE MD 20850

RECENTLY THE CENTER FOR EDUCATION STATISTICS OF THE U.S. DEPARTMENT OF EDUCATION SENT YOU A QUESTIONNAIRE CONCERNING HOW STUDENTS AND THEIR FAMILIES FINANCE THEIR EDUCATION AFTER HIGH SCHOOL. YOUR INPUT IS ABSOLUTELY ESSENTIAL TO THE SUCCESS OF THE STUDY. IF YOU HAVE NOT ALREADY DONE SO, PLEASE RETURN YOUR COMPLETED QUESTIONNAIRE IN THE POSTAGE-PAID ENVELOPE AS QUICKLY AS POSSIBLE.

IF YOU NEED ANY ASSISTANCE IN COMPLETING THE QUESTIONNAIRE, OR IF YOU HAVE ANY QUESTIONS ABOUT THE STUDY, PLEASE CALL OUR TOLL-FREE NUMBER (800) 345-0723. IN MARYLAND, CALL (301) 963-5456.
1109 EST

MGMCOMP MGM

TO REPLY BY MAILGRAM MESSAGE, SEE REVERSE SIDE FOR WESTERN UNION'S TOLL - FREE PHONE NUMBERS

## Exhibit 5-2. NPSAS mailing schedule

STUDENT SURVEY

| | DATE | NUMBER SENT |
|---|---|---|
| WAVE 1: | | |
| First mailing | 3/13 | 49,519 |
| Mailgram | 3/27 | 49,519 |
| Second mailing | 4/3 | 44,018 |
| Second mailgram | 4/30 | 31,801 |
| WAVE 2: | | |
| First mailing | 3/30 | 4,908 |
| Mailgram | 4/25 | 4,908 |
| Second mailing | 4/30 | SEE WAVE 3 |
| Second mailgram | 5/22 | SEE WAVE 3 |
| WAVE 3: | | |
| First mailing | 4/7 | 2,228 |
| Mailgram | 4/25 | 2,228 |
| Second mailing | 4/30 | 6,277 ** |
| Second mailgram | 4/30 | 4,797 ** |
| WAVE 4: | | |
| First mailing | 5/4 | 1,015 |
| Mailgram | 5/18 | 1,015 |
| Second mailing | 5/22 | 874 |
| Second mailgram | 6/5 | 688 |
| WAVE 5: | | |
| First mailing | 5/29 | 378 |
| Mailgram | 6/15 | 378 |
| Second mailing | 6/17 | CANCELLED |
| Second mailgram | 7/1 | CANCELLED |
| WAVE 6: | | |
| Advance letter | 6/29 | 1500 |

NOTE: ALL WAVE 6 CASES WILL BE SENT TOT HE TRC FOR TELEPHONE INTERVIEWING.
ALL WAVE 4,5 AND 6 CASES WILL BE FLAGGED FOR SPECIAL DATA RETRIEVAL.

** Waves 2 and 3 were combined for the second mailing and mailgram.

Survey mailing was contracted to a subcontractor. They were provided with all survey materials, including U.S. Department of Education franked window envelopes and a set of Cheshire labels printed on 14 x 11 computer-stock paper. The subcontractor cut the labels and pasted them on the back cover of the survey by machine. They then had workers assemble the mailing packages. Mailing contractor errors were minimal and accounted for only thirty one pieces of returned mail.

All mailing addresses came from Fall Records data collection. Surveys were mailed to the student's local address. If this address was missing, the survey was mailed to the student's permanent address. If both these addresses were missing, the survey was sent to the student at his or her parents' addresses. Surveys were mailed to Canada but all other foreign addresses were excluded. The second mailing and mailgram went to alternate available addresses.

### 5.3.2 Technical Assistance

All student survey mailings gave a toll-free number for students to call if they had any questions about the survey or needed assistance in completing it. Calls came into three phones programmed to ring over to each other if they were busy or unanswered. The third phone in the circuit was connected to an answering machine to catch calls that came in outside of scheduled hours.

#### Training

Westat Telephone Research Center interviewers were trained to staff the toll-free lines in a four-hour training session. Because staff members who answered the toll-free lines had to master a good deal of technical information about the study and the survey instrument, experienced interviewers were selected. During training, trainees received a manual that explained the background and purpose of the study, covered general procedures and documentation procedures for each call, and discussed handling eligibility questions in detail. The manual gave suggested answers to possible questions and contained a question-by-question guide to the survey that clarified each response item in detail. Training covered the manual and provided an opportunity for role plays and questions from trainees.

## Staffing

Technical assistance operations began on March 9 and continued through September 4. Initially, two trained staff members were present to answer phones throughout three weekday shifts, one Saturday shift, and two Sunday shifts. Weekday hours ran from 8:30 a.m. to midnight, Saturday hours went from 10:00 a.m. to 6:00 p.m., and the Sunday shift went from 2:00 p.m. to 10 p.m.. On high-volume days, the staff was augmented to three or four interviewers. Hours of operation were curtailed as call volume decreased.

## Volume of Calls

Interviewers handled an average of twenty-four calls per day in the one hundred and forty eight days of operation from March 12 through September 4. The volume of calls fluctuated daily ranging from zero calls to over two hundred and sixty calls. There were seven days which had a volume of over one hundred calls. Mailgrams and second mailings caused the greatest phone response. The mailgram in particular caused a large volume of calls to be received in the four or five weekdays immediately following its delivery. Response was always greatest in the afternoon. During the first two months, over fifty percent of the calls occurred between noon and 5:00 p.m..

## Questions Answered

Telephone interviewers documented each call. All calls were reviewed by a supervisor and then coded according to the type of question(s) asked. Most callers had general comments and questions regarding the survey. Table 5-1 shows a breakdown for general questions and comments.

Table 5-1. General Questions/Comments to Technical Assistance Interviewers

| Questions | Number |
|---|---|
| Did not receive survey | 752 |
| Said sent survey in | 632 |
| Eligibility questions | 446 |
| Deadline? | 313 |
| Refusal | 242 |
| Ineligible | 198 |
| Explain study | 155 |
| Confidentiality concerns | 74 |
| How sampled? | 65 |
| Student abroad/away | 55 |
| Complains/comments (non-refusal) | 55 |
| Study voluntary? | 50 |
| Missing/defective material | 38 |
| Estimating answers | 32 |
| Student aid questions | 27 |
| Wants results of study | 14 |
| Complaint about school | 8 |
| Miscellaneous | 142 |
| TRC-NRF-related calls | 53 |
| Wave 6-related calls | 20 |
| TOTAL | 3,371 |

By far the largest volume of queries, 1,697, came as a response to mailgrams and second mailings. Students called to say that they had not received the survey, that they had sent it in, or to ask about a survey deadline.

Eligibility questions and refusals also accounted for a large number of calls. Many students, especially foreign students, questioned their eligibility for participation, but only some of these were ineligible by survey definitions. Interviewers used precise instructions for these callers and encouraged all eligible students to complete the survey. Likewise, interviewers also encouraged all refusing students to complete the survey.

Students also called with over eight hundred and fifty questions about specific survey response items. These questions covered almost every survey question. Of these, the only survey response items with a significant number of call-in questions were questions twelve and fourteen, which were on average monthly living expenses. Together these response items accounted for about sixteen percent of call-in questions about specific survey responses.

### 5.3.3 Postmaster Returns

An operation to handle postmaster returns was begun in mid-March and closed in mid-August. The main aim of the operation was to remail postmaster returns to corrected or alternate addresses, but the operation also handled remail requests from the technical assistance operation and from the Telephone Research Center (TRC) during their administration of the student telephone survey.

8,240 pieces of returned mail were received and 2,184 remail requests from the TRC and technical assistance operations were processed. About 3.3 percent of each mailing was returned by the postal service as undeliverable. Postmaster returns and remail requests represented about eleven percent of all surveyed students.

To aid in the postmaster return operation a computer locater file containing a record for each surveyed student and including all available valid addresses was created. The file also recorded all remailing dates and addresses and aided in the computer-generation of new mailing labels.

When possible, postmaster returns were remailed to a forwarding address provided by the postal service. If such an address was unavailable, the remail was sent to a valid alternate address on the locater file or an address obtained by calling the student or the student's parents. Mailgrams were not remailed. Instead an additional second mailing if one had not already been processed as a postmaster return.

Surveys were remailed to 5,919 students, including TRC and toll-free-line operation remail requests. Fifty-six percent of these mailings were to valid alternate addresses. The rest were to updated addresses received through telephone tracing, correspondence, TRC update, or forwarding addresses given on the envelope of returned mail.

Mail processing was stopped when no valid alternate address could be found on file and telephone tracing failed, when information showed that the student now lived outside the United States or Canada or was deceased, when the student refused participation, when information showed that the student was ineligible to participate in NPSAS, or when information showed that the student received a copy of the survey with another mailing.

Twenty percent of all postmaster return students eventually returned a competed mail survey. This compares with a forty two percent success rate for all non-postmaster return students.

## 5.4 Student Telephone Survey Operation

A sample of all students who had not responded to the mail survey was prepared in June 1987. Westat's Telephone Research Center contacted these students and administered the phone version of the student survey during June, July, and August.

### 5.4.1. Staffing

It was anticipated that 3,000 interviewer hours per week would be needed in order to complete the non-response followup by August 1987. This entailed a staff of about one hundred and twenty regular interviewers, each working twenty five hours a week for the twelve scheduled weeks of the non-response followup. Additionally, five shift supervisors, and two clerical staff members were needed.

Because the student non-response followup operation was a large operation and because the Telephone Research Center had other large ongoing surveys, most interviewers for this phase of NPSAS were new employees. Since the student telephone survey was to be handled during the summer months and because it was felt that students would do well in administering a survey to other students, the local university student workforce was tapped as the main source of labor for this operation.

### 5.4.2 Interviewers' Manual

An Interviewer's Manual was developed for use during training and was given to each interviewer for reference during survey operations. The manual gave a comprehensive overview of

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NPSAS, a question-by-question guide to the student telephone survey, suggested answers to questions from respondents, project billing, and toll-free number procedures. The manual also included information about general TRC survey procedures, refusal avoidance, tracing procedures, and quality control.

### 5.4.3 Interviewer Training

#### General Interviewer Training

All new interviewers attended General Interviewer Training, which is a standard training session used with all new TRC interviewers to acquaint them with the Telephone Research Center and instruct them in professional interviewing techniques. This training lasted four hours and covered interviewing rules, procedures, courtesy and ethics, TRC call records, clerical handling, and performance monitoring and review. The training included a slide/tape presentation, lectures, and discussions.

#### NPSAS Student Telephone Survey Training

Interviewers were trained, in three two-day sessions, to administer the student non-response followup survey. The Telephone Center Director conducted the sessions with support from TRC project and shift supervisors.

At training, each interviewer-trainee was given a copy of the Student Telephone Survey Interviewer's Manual. This manual served as the primary reference tool during training. Training consisted of an overview of NPSAS, including its scope and aims, a complete item-by-item discussions of the prompt and survey, and a review of clerical handling, project administration, and respondent status codes. It also included a review of interviewer roles and responsibilities, and a discussion of suggested answers to respondent questions and refusal avoidance.

During training, several role play scripts were prepared for plenary and dyad use with interviewers. Each role play attempted to portray a respondent with a different set of reactions so interviewers would gain experience with a wide range of circumstances. Trainees were allowed to repeat role plays until they felt confident to begin actual calls.

Special attention was given to refusal avoidance. It was stressed that higher response rates could be obtained by responding quickly and confidently to respondent objections.

At the end of each day's session, time was allotted for interviewer questions and review. Interviewer-trainees were also assigned two hours of home study between training sessions.

### 5.4.4 Survey Materials

A packet of materials was prepared for each surveyed student. These materials included a survey form, a copy of the telephone prompt script, a TRC call record, and a Respondent Information Sheet. The call record is a form used for all TRC interviews to document time and result of each call attempt. The results of all calls are indicated by specific interim or final status codes. The Respondent Information Sheet is a computer-generated sheet which gives the interviewer specific information about the student to locate the student and complete the interview. This information included the students name, all student addresses and phone numbers (including parent addresses and phone numbers), and the student's school.

In addition to respondent packets, other forms and materials were developed for use during telephone survey operations. The Non-Interview Refusal Form was used to document refusals. This form was then used to prepare for later refusal conversion calls. Interviewers used the Remailing Form when the respondent said that he/she had not received the mail survey and preferred to complete the survey by mail rather than over the phone. Interviewers passed this form on to clerical staff for survey mailing. Interviewers used the 800 Number Report Form whenever they left a message for the respondent to call our toll-free line.

Each interviewer was also given a set of personalized labels to affix to the survey and call record. They were printed using the Optical Character Recognition (OCR) character set so that TRC clerical staff could speed processing of forms by using an optical wander.

### 5.4.5 Survey Operations

#### 5.4.5.1 Work Distribution

Clerks classified all interview packets into time zones so that interviewers on various shifts could make calls at appropriate hours. As calling progressed, interim work and appointments were kept separate from new work within each time zone. Within interim work, a distinction was also made among day, evening, and weekend calls. It was stressed to interviewers that their first priority at all times was to meet daily appointments set previously by other interviewers. Second priority was given to new work so the non-locatable students and other unproductive cases could be eliminated early in the operation. Interim work was given third priority.

The student mail survey receipt operation notified TRC phone survey operations on a daily basis if a student had mailed in a questionnaire, called in a final refusal, was deemed ineligible for the study, or was judged for any other reason as unnecessary to survey by phone.

#### 5.4.5.2 Contact Procedures

Locating Students

Each student interview packet had a Respondent Information Sheet that listed up to four telephone numbers for a student. These included the student's local and permanent phone numbers and the student's parents' phone numbers gathered during Fall Records data collection. (In a small number of instances, phone numbers had been updated as a result of mail survey postmaster return handling.) Initially, interviewers tried the student's local (school) phone number first and then tried permanent and parents' numbers. As interviewing progressed into the summer, it was determined that students were more likely to be at their permanent phone numbers and this number was tried first. If all numbers proved invalid or missing, interviewers called directory assistance using student, parent, and school addresses.

Directory assistance tracing required the interviewer to ask directory assistance for respondent listings in the city of the permanent address. Interviewers provided the student's last name at the street address. If directory assistance had no listings, interviewers next asked for any family with the last name in town or on that street, although not at the same building number. If directory assistance again showed no listing, interviewers were instructed to request numbers for any two families having the same last name in the same town if the total number of listings shown on directory assistance's records was ten or less. Interviewers then called both of these listings to inquire if those families knew of the respondents and how to contact them (when directory assistance showed more than ten listings for the same last name, the effort was abandoned as being too inefficient). If this did not produce results, interviewers examined the student's campus address in order to ascertain whether or not it was off-campus. If it was an off-campus address, the interviewer called directory assistance in that area.

When all directory assistance efforts failed, including cases where directory assistance checks resulted in unlisted, non-published, or disconnected numbers, interviewers referred cases to their supervisors for further tracing. Cases in which the interviewer called a student or directory assistance but got no answer were not considered as a failure to locate. These cases were classified as interim work to be completed at another time.

Locating students was a difficult task because students are an extremely mobile group. Interviewers were unable to locate many students in the spring and summer of 1987 with information collected during the previous fall and winter. Often phone numbers and addresses collected at schools were out of date. Many schools do not maintain accurate databases with this information and phone numbers and addresses often came from school admissions applications.

## Getting a Respondent to the Phone

Once a respondent was located, interviewers often still faced the task of getting the respondent to the phone. Students were difficult to reach because of class schedules, jobs, and other activities.

If someone else answered the phone and said that the student was not there, the interviewer asked when it would be likely to reach the student. The interviewers then tried to contact the student again at the stated time. If the student was still not at home, interviewers left a message for the student to call the telephone center's toll-free number.

The telephone center's toll-free call-in number was also used if the student had no home telephone, but interviewers were able to contact and leave a message with a relative, friend, or neighbor, if a student could not be reached by phone during Telephone Center working hours, or if interviewer calls were met by an answering machine. If the student could not be reached by phone during Telephone Center hours, a call was scheduled at the student's convenience.

In several instances, students were overseas for military obligation, schooling, travel, or jobs. Such cases were classified as "Out of Area" and no further contact was attempted. For students incarcerated, hospitalized, or in other non-reachable situations, the cases were coded as a "Refusal" by the supervisory staff. In a few cases where the death or severe injury of respondents was reported, the student was given a classification final of "Other."

## Making Appointments

Because the survey took about forty minutes to administer and because of the detail required of respondents, it was often inappropriate for interviewers to administer the survey during the first contact with the respondent. Interviewers made it clear that respondents could be recontacted at almost any time, provided the call was made during Telephone Center hours of operation. Whenever possible, interviewers attempted to set up firm appointments to administer the survey. If this was not possible for the respondent, interviewers attempted to determine a good date, time of day, or type of day (weekend, workday, etc.) to call back.

## Interim Codes

Interviewers assigned interim classifications to all call attempts that did not yield a final status. Interviewers continued to handle most interim cases themselves. These were cases with the following classifications:

- "RING, NO ANSWER", including answering machines.
- "BUSY SIGNAL".
- "CALL BACK - NO APPOINTMENT".
- "FIRM APPOINTMENT SET FOR CALLBACK".

Interviewers gave other cases interim classifications and referred them to their supervisors. These classifications included:

- "INITIAL REFUSAL/BREAKOFF"--Supervisor reviewed before refusal conversion.
- "INITIAL LANGUAGE PROBLEM" (foreign language, speech or hearing difficulty)--A callback was attempted if supervisor had hopes of reaching someone else in the household with whom interviewers might have communicated successfully.
- "OTHER PROBLEM"--Any problem not covered in any of the other classification.
- "TRACING NEEDED"--Interviewer could not locate the student with given numbers or directory assistance.

Interviewers used several special interim categories. These cases were held for later recontact if appropriate:

- "SURVEY REMAIL"--Respondent requested another copy of the survey to be mailed, either because original was never received or because the student misplaced the original. For these cases the interviewer verified the respondent's correct mailing address on a form and passed the form on to clerical staff, who sent the student another copy of the survey.

- "MAIL SURVEY SENT"--During the survey prompt, respondents indicated they had already mailed in the survey. Interviewers indicated to the respondent that he/she might be called again if the survey was not received.
- "STUDENT WILL SEND MAIL SURVEY"--Respondents indicated during the survey prompt that they would, sometime in the near future, mail in the survey. Interviewers indicated to the respondent that he/she might be called again if the survey was not received.

## Final Codes

Three types of final classifications were assigned to cases. The following classification was made by the interviewer and was not subject to regular supervisor review:

- "COMPLETE"--All questions answered.

Interviewers assigned the following other final classifications only after supervisory review:

- "PARTIAL COMPLETE"--All questions of the survey completed except for questions in Work and Earnings History, Demographics, and Choice Questions sections.
- "INELIGIBLE"--Student was not taking class(es) on or about October 15, 1986 or did not meet other eligibility requirements.
- "MAXIMUM CONTACT"--Supervisor assigned this classification when seven or more call attempts were made over an equitable distribution of day, evening, and weekend times, and the telephone number was confirmed by a household member to be that of the respondent's.
- "NO ANSWER"--Those cases with multiple call attempts resulting exclusively in "Ring, no answer".
- "OTHER"--No other final code was appropriate.

Supervisors assigned several other final classifications after special refusal conversion, special language interviewing, or tracing yielded no results:

- "FINAL REFUSAL/BREAKOFF"--A supervisor determined, sometimes after refusal conversion attempts, that the respondent would not cooperate.

- "FINAL LANGUAGE PROBLEM"--After supervisory review or a callback attempt, it was determined that interviewers could not communicate with anyone in the household.

- "NOT LOCATABLE"--Telephone Center staff could not contact respondent by phone through normal procedures. Tracing failed.

### 5.4.7 Editing and Clerical Handling

Immediately after an interviewer completed the student telephone survey with a respondent, he/she reviewed his/her work to check for and correct incorrectly followed skip patterns, blank number spaces that should have had zero-fills, blank answers that should have been either zero-filled or properly coded for answers of "don't know" or "refused", non-standard abbreviations that should have been spelled out, and illegible handwriting. Interviewers were also to make sure that they had updated any new information on the student on the Respondent Information Sheet, that they coded alongside all corrections on the survey with RE (respondent error) or ME (my error), that notes to editing staff were surrounded by parentheses, and that their initials and date were in the upper right corner of the survey booklet cover to indicate completed editing.

Clerical staff processed finalized cases by entering interviewer name and disposition into the Telephone Research Center's Sample Management System. Clerks entered interviewer name by using an electronic wand to read interviewer labels attached to each case. Clerks batched cases according to their final classification and listed classification and student Westat I.D. numbers on transmittal sheets. They then sent batch cases with a copy of the transmittal sheet to the receipt processing operation, which was responsible for sending the cases to data entry.

### 5.4.8 Special Efforts

Several special efforts were organized during student telephone survey operations in order to raise overall response rates.

### The Toll-Free Number

Interviewers gave out the telephone center's toll-free phone number if the student had no home telephone but interviewers were able to contact and leave a message with a relative, friend, or neighbor, if a student could not be reached by phone during telephone center working hours, or if interviewer calls were met by an answering machine. Interviewers also gave out the toll-free number if a respondent or household member wished to verify the project legitimacy of the call or the interviewer.

Whenever a message was given for a respondent to call the toll-free number, the interviewer filled out an 800 Number Report Form, attached it to the survey call packet, and filed the case alphabetically at the shift supervisor station. When a call came in to the shift supervisor station, supervisors located the survey call packet and referred the case to an appropriate interviewer.

If a student did not respond to the toll-free number within two to three weeks, the contact number was recalled and another message was given. When the number of outstanding toll-free line calls became very large, a team of three interviewers, who worked full time exclusively on recalling these cases, was assigned. During the last week of the student phone survey operations, all interviewers worked on making a final attempt to contact these respondents. If, by the end of the study, the respondent still had not contacted Westat, supervisors classified the case as a final refusal.

### Refusal Conversion

Supervisors sorted initial refusals daily and judged which among them were firm refusals and which were potentially reversible. Supervisors gave firm refusals a "final refusal" classification. All other cases were held for three weeks in order to give respondents time to think about (or forget) the original call. After three weeks, the student phone survey call packets were re-prepared for interviewers.

Interviewers who showed particular skill in speaking with difficult, hesitant, or hostile respondents were trained in refusal conversion to convert students who had refused to be interviewed during the first phone contact. During the one-and-one-half hour refusal conversion training session, project-specific and general reasons for respondent refusals were discussed and suggestions, rules, and procedures for conversion attempts were given. The training was led by supervisors who were experienced in refusal conversion. Interviewers were provided with a written manual of reasons/rationales for refusal, suggested rebuttals and responses to refusal statements, instructions on preparing for conversion attempts, methods for contacts, and a suggested introductory statement to use when the respondent was reached.

Before attempting a refusal conversion, refusal conversion interviewers examined the student survey call packet and the notes left by the original interviewer in order to determine the best strategy to use in recontacting a respondent. In addition to recording objective impressions, the original interviewer was also asked to gauge and note the strength of the refusal, and the hostility of the respondent toward the survey. If a non-respondent was the cause for the initial refusal, refusal conversion interviewers examined the Non-Interview Refusal Form and used this form to determine their course of action.

If the refusal conversion interviewer failed to gain a completed interview, the case was given a final refusal classification. Supervisors reviewed all final refusals.

A weekly refusal conversion production report was produced so that refusal conversion interviewers and supervisors could chart the progress of this operation.

### Language Problem Recalls

Supervisors reviewed interviewer notes for all language-problem cases. If the intended student respondent was not the cause of language-problem case but rather family members or housemates who answered the phone, the supervisor worked with interviewers and suggested better times of day to call the student. Spanish speaking cases were referred to a Spanish-speaking interviewer.

### Other Special Recalls

A special recall effort was organized for cases that interviewers gave interim classifications of "mail survey sent," "student will send mail survey," or "survey remail." These cases were filed for four weeks before being re-prepared for calling. Special interviewers were given one-half hour of training, during which they were instructed on using a specially prepared prompt that encouraged respondents to complete the survey over the phone at that time.

In addition to this special effort, a similar effort was organized for about 1,500 students who, because Fall Records data collection occurred very late in the spring, were not a part of the mail survey. A special prompt that eliminated reference to the mail survey and encouraged respondents to complete the survey over the phone was used.

## 5.4.9 Quality Control

### 5.4.9.1 Monitoring

After training was completed, shift and project supervisors heavily monitored interviewers for the first several work shifts in order to make sure that all interviewers were fully prepared to interview.

Following standard TRC procedure, Westat shift and project supervisors monitored ten percent of all interviewer calls randomly and without their knowledge for the duration of this component of the study. More monitoring effort was undertaken at the beginning of the survey in order to provide helpful comments to interviewers to improve their work. Although not always possible, supervisors attempted to monitor complete interviews and used a monitoring evaluation sheet with evaluation columns. Monitors also compared the interviewer's completed survey instruments to their own record of respondent answers to gauge the accuracy of interviewer recording.

All monitoring sheets were kept on file by interviewer name. Supervisors periodically counted total sheets per person, compared this to phone work hours and total number of complete cases, and used the results to verify that interviewers were being monitored adequately.

### 5.4.9.2 Verification Calls

No verification calls were necessary during student telephone survey operations. If an interviewer had not had at least a minimum of ten per cent of calls resulting in a complete disposition, project supervisors would have re-called randomly-selected cases to verify the accuracy of the interviewer's work.

### 5.4.11 Reporting

The Sample Management System produced for project supervisors daily cumulative totals of all finalized and initial refusal cases.

Once a week TRC Sample Management System staff processed information on telephone hours per interviewer and calculated the averaged production time per finalized interview. Along with cumulative totals per individual and the entire interviewing staff, these averages were made available to the interviewers as a way for them to check on their own progress as compared to that of the entire staff. These figures also provided project supervisors with a method of tracking interviewer progress and production.

The sample management system also produced weekly Production Reports. The Production Report included weekly and cumulative totals of cases worked and not yet worked, telephone and non-telephone (clerical and/or training) hours worked, initial refusals, and complete and finalized case totals. The report also calculated response rate and projected hours to survey completion. To help manage refusal, the reports also contained crosstabs showing finalized and initial refusal cases according to the numbered call attempt on which the disposition was given.

## 5.5 Data Preparation

Student survey data preparation included receipt processing, scan-editing, data retrieval, key entry, and Westat's Computer Assisted Coding and Editing. Figure 5-1 diagrams the flow of these elements.

For the student survey, both mail and telephone questionnaires were received for processing. Procedures were roughly the same for both surveys and both used the same computer receipt control system.

### 5.5.1 Student Survey Receipt Control System

The student mail survey receipt control file's main purpose was to keep a record of current processing status. It was indexed by the student's assigned Westat id and contained fields for receipt date, status code, date to data retrieval, date from data retrieval, batch number, batching date, date to key entry, and date from data entry. Status code indicated current data preparation status, but also included codes for refused, ineligible, and deceased students.

The system also had a separate set of variables for the telephone survey, which indicated whether a student's case had been transmitted to the telephone center and the status of that case in the phone center. These variables were updated regularly with data from the telephone center's Sample Management System.

### 5.5.2 Receipt Processing

Receipt of mail questionnaires from students began in March 1987. Clerical staff separated surveys into five status categories: complete, refusal, ineligible, deceased, and problems. Each day, staff created a data file of I.D. numbers for all completed cases received using an optical wander to read I.D. numbers on survey mailing/identification labels. A computer program was used to update the student receipt control file with received date and a status code indicating completion. A supervisor reviewed non-complete cases and assigned a status code for the receipt control system.

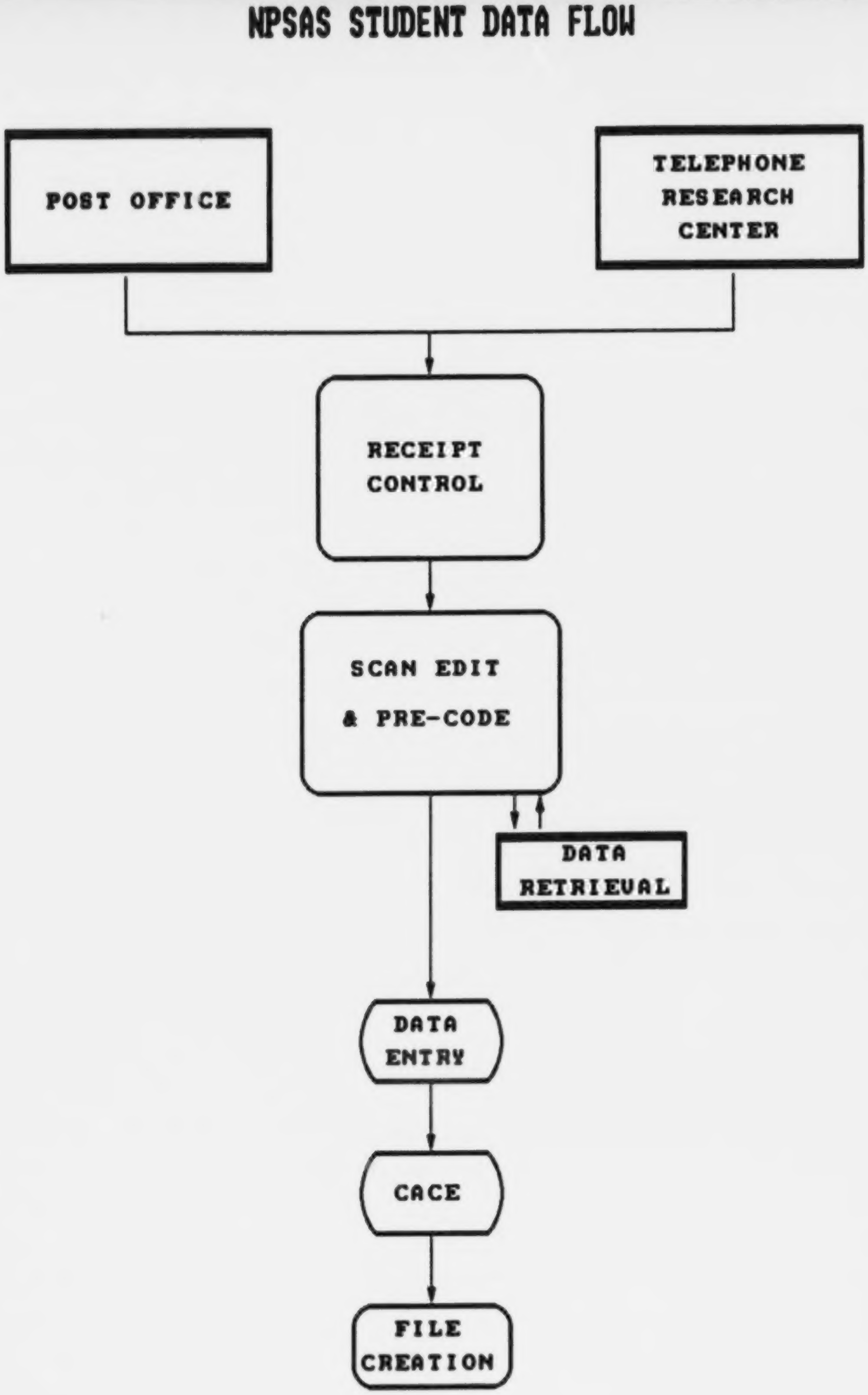

NPSAS STUDENT DATA FLOW
POST OFFICE
TELEPHONE RESEARCH CENTER
RECEIPT CONTROL
SCAN EDIT & PRE-CODE
DATA RETRIEVAL
DATA ENTRY
CACE
FILE CREATION

Figure 5-1. NPSAS student data flow

The Telephone Research Center (TRC) began returning completed phone surveys for data preparation in June. Clerical staff matched and checked TRC transmittal sheets with survey forms and made sure that the respondent name on the survey form matched all other records transmitted. They then sorted the forms into each of six status types--complete, refusal, ineligible, language problem, deceased, and non-locatable--and updated the receipt file accordingly.

### 5.5.3 Scan-editing and Critical Item Check

After receipt processing, trained personnel scan-edited the survey forms. Scan-editing included a general edit, a non-critical item check, and a critical item check. Scan-editors made all editing marks on the survey in red pencil.

For the general edit, scan-editors scanned each survey form and changed all responses answered with a dash to zeros, rounded up all fractional answers, and changed all responses answered with a numeric range to the midpoint of that range. Scan editors also had supervisors review all marginal notes and circled the notes so that they would not be keyed.

For non-critical items, Scan-editors made the following changes:

- Questions 7, 11, 38A, and 41 -- If totals were given, placed amount in first response.
- Questions 17, 38, and 88 -- Coded responses "1" if box was checked.
- Questions 23 and 52D -- Circled answer and made sure cents had been recorded.
- Questions 45 and 99 -- If multiple response, took highest level of education.
- Questions 97 and 98 -- If occupation deceased, crossed out.

The critical item check had scan-editors check a list of twenty-one survey response items, developed by Westat with NCES, which were determined to be essential to the success of the study. If any of the items on the list did not have acceptable survey responses, the survey went to data retrieval for these items.

For phone surveys. it was expected that few questionnaires would fail the critical item check and need data retrieval because interviewers had respondents answer all survey items when possible. Instead of manual critical item checking, the first two thousand cases received were run through a computerized critical item check. Only thirteen of the cases needed data retrieval and were transmitted to the telephone center. Because of the small number of cases failing critical items, no additional phone questionnaires were sent for data retrieval.

### 5.5.4 Data Retrieval

Questionnaires returned by mail and failing any one of the twenty-one critical items was sent to Westat's telephone center for data retrieval. Eighty-five percent of all received mail surveys needed one or more items data retrieved. A list of missing critical items was attached to the questionnaire when it was batched and sent to the telephone center and the receipt system was updated, indicating date sent.

A majority of cases that failed the critical item checklist were lacking a response to only one question: that requesting parent name, address, and telephone number information. Since data retrieval continued into the time period of the parent survey, once the parent subsample was drawn, it became more efficient to contact students for these cases only when their parents were in the Parent sample.

#### 5.5.4.1 Interviewer's Manual

The data retrieval interviewers' manual gave a comprehensive overview of NPSAS and data collection efforts at Westat, provided a question-by-question guide for each of the 21 critical item questions needing retrieval, and gave documentation, administrative, and clerical instructions. It also provided suggested answers to respondent questions and information about refusal avoidance and quality control. Each interviewer was given a copy of the manual during training to keep for reference.

### 5.5.4.2 Materials

Interviewers were provided with the survey form, the data retrieval checklist, a call record form, a Respondent Information Sheet, and a set of personalized labels. The data retrieval checklist was a list of all twenty-one critical items. Scan-editors indicated on the form which critical items needed data retrieval. Call record forms were provided for interviewers to record each call attempt and its result. The Respondent Information Sheet was a computer-generated sheet that contained the student's name and all available file addresses for both the student and the student's parents. All interviewers were also provided with personalized labels so that interviewer productivity could be easily monitored.

### 5.5.4.3 Training

Interviewers were trained for data retrieval in a four-hour session. All interviewers were experienced TRC employees. During training all material in the interviewer manual was reviewed. Trainees participated in interactive role plays until they felt confident to begin calling. These role plays emphasized obtaining all critical response items, including those asking for sensitive financial information. Time was allotted at the end of the training session for interviewer questions and review.

### 5.5.4.5 Contact Procedures

Locating Respondents

Interviewers used phone numbers on the Respondent Information Sheet to contact the student. If all phone numbers proved invalid, interviewers called directory assistance for the cities given in student and parent addresses. When these locating efforts failed, interviewers referred the case to supervisors, who reviewed them for further tracing activities.

Appointments and Callbacks

Even though data retrieval calls involved only a few minutes of a respondent's time, it was not always convenient for the respondent to converse with an interviewer when called. Whenever possible, interviewers attempted to set up appointments for a particular date and hour. If this was not possible interviewers determined a non-specific, generally convenient time to call back. Interviewers left a message with a Westat toll-free number if it was difficult to reach a student.

Assigning Codes

Interviewers documented each call attempt with an interim or final code. Completed cases went to clerical staff for processing. Problem cases went to supervisors for review.

Interviewer Editing

Immediately at the end of a "Complete" or any other finalized interview, interviewers reviewed their work to check for errors and legibility.

### 5.5.4.6 Clerical Handling

Sample Management staff entered final dispositions into the TRC sample management system using an electronic wander on the interviewer label. Clerical staff batched finalized cases and sent them to the data preparation operation for further editing and data entry.

### 5.5.4.7 Quality Control

Using a silent monitoring system, supervisors monitored interviewers at random. A monitoring evaluation sheet listed both positive and negative comments which were discussed with the interviewer. Shift Supervisors also checked over the written work of the interviewer, comparing it to the notes they had taken while monitoring the interviewer, in order to ensure that the recording of collected data was accurate.

Shift Supervisors kept all monitoring sheets on file by interviewer name. Supervisors periodically counted total sheets per person, compared this to phone work hours and total number of complete cases, and thus kept track of which interviewers needed more monitoring.

Although not necessary on this portion of the NPSAS survey, had any interviewer not had a minimum of ten per cent of calls resulting in a disposition of "complete" , project supervisors were prepared to call randomly-selected cases to verify that the interviewer's work was, indeed, accurate.

### 5.5.4.8 Reporting

Once a week, telephone hours per individual interviewer were submitted to the Sample Management System staff, who averaged production time per "complete" and all other finalized dispositions. Along with cumulative totals per individual and the entire interviewing staff, these averages were made available to the interviewers as a way to check on individual progress and that of the entire staff. These figures also provided project supervisors with a method of tracking interviewer progress and production.

Cumulative response rates were published weekly. Formulas were printed on the weekly production reports. Interviewers were made aware of individual and group response rates to let them know how they were doing.

### 5.5.5 Data Entry

Cases that did not need any data retrieval and cases returning from data retrieval were prepared for data entry. Clerical staff batched the questionnaires, generated a batch control sheet, and scanned each batch control sheet for accuracy before data entry. A frequency run was also scanned to assure that all data had been keyed and that it had been keyed with the correct identification number.

Data entry was done by subcontractors and by Westat's data entry area. All data entry was double-key verified. One machine readable file for each batch of forms was requested to allow a maximum level of control and verification with minimal effort needed to recover errors.

### 5.5.6 Computer Assisted Coding and Editing (CACE)

Clerical staff checked batches returning from data entry by examining each batch control sheet for accuracy. The key-entered data was loaded into the CACE system, which edited ranges and logics. Trained personnel corrected, overroad, and deleted the data according to specifications. At this time, if additional data retrieval was deemed necessary, the case was sent to the Telephone Center. A final verification of out of range variables and logics was done manually to ensure accuracy.

# 6. PARENT SURVEY

## 6.1 Objectives and Design

The parent survey collected parent-reported data on the costs and financing of postsecondary education, and family financial, educational, and employment characteristics. The prime reason for the survey was to obtain family financial data for unaided, dependent students, since these data would not be available from other sources.

Data was collected in two efforts. First, in May, June, and July 1987, mail surveys were sent to sampled students' parents. Then between August and December, mail survey non-respondents were telephoned and administered a telephone version of the survey.

## 6.2 Forms Design

### 6.2.1 Parent Mail Questionnaire

Like the Record Abstract Form and Student Questionnaire, the Parent Questionnaire (Appendix A-8) was a collaborative effort among Westat, NCES, the NPSAS Steering Committee, and the NPSAS Advisory Group, consultants, and various work groups.

Although the instrument was to be a revision of the field test parent survey, its design became a function of Student Questionnaire design, so that data between the two surveys would match and complement each other. The Parent Questionnaire underwent nine drafts before it was ready for submission to FEDAC and OMB. The final version of the Parent Questionnaire was considerably longer than the field test questionnaire, expanding the field test survey by twenty-four pages and thirteen questions.

In its final form, the survey contained five sections: "Information About Your Family," "Your child's Education Expenses," "Other Education Expenses for Your Family," "Your Family Financial Condition," and "Your Employment and Education." It included six skip patterns. The printed survey booklet included a letter from NCES about NPSAS and a set of instructions. The front cover included a space for a mailing/identification label that would be visible through a window envelope.

The survey was field tested more informally than the Student Questionnaire, because the range of changes that could be made to the Parent Questionnaire was limited by the content of the Student Questionnaire.

The Parent Questionnaire was submitted to FEDAC/OMB for review as a separate package in early February 1987 and recommended changes were received from them on February 25. The questionnaire, with revisions, was resubmitted on March 16, gaining final approval on March 31, 1987.

### 6.2.2 Parent Telephone Questionnaire

In June 1987, Westat Telephone Research Center (TRC) senior staff revised the Parent Mail Questionnaire so that it could be administered as a telephone survey. In its final form it was in content almost identical to the mail survey. Like the Student Telephone Questionnaire, the Parent Telephone Questionnaire (Appendix A-9) was restructured to allow interviewers to better focus respondent's attention and increase recall and accuracy of response. Another reason for rewording questions (without changing the intent of the questions) was so that the questions could be asked in a conversational manner.

The restructured telephone survey had five sections: "Student's Education Expenses," "Other Family Education Expenses," "Income and Expenses," "Demographics," and "Choice Questions."

A questionnaire prompt was also developed. Interviewers used the prompt at the beginning of each interview to introduce themselves as representatives of the U.S. Department of Education and to help them assess whether a phone interview was appropriate at that time.

The final version of the Parent Telephone Questionnaire was approved by NCES staff on July 29, 1987.

## 6.3 Mail Survey Operation

### 6.3.1 Survey Mailing

Exhibit 6-1 shows the mailing schedule for the Parent Mail Questionnaire. Surveys went out in three waves beginning in mid-May 1987. About two-thirds of the surveys were mailed with the first wave. The rest of the surveys were mailed in two smaller waves that followed in June and July.

Each surveyed parent received a first mailing followed in about two weeks by a mailgram. Each first mailing contained a survey, a postage paid envelope, a pamphlet on the study, and a brochure of Federal financial aid programs. In addition, a subsample of parents received a small calculator as an incentive for participation. The mailgram, from the U.S. Department of Education, contained a short message that urged participation in the study. For survey non-respondents, the mailgram was followed in two more weeks by a second mailing.

As with the student mail survey, a subcontractor handled the mailing. The subcontractor was provided with all survey materials and a set of Cheshire labels, which they cut and pasted on the front cover of the survey forms. They then inserted the surveys in window envelopes for mailing.

Mailing addresses came from Fall Records data collection but included corrections from student survey postmaster return locating activities. Each survey was addressed in five lines. Because parent names were not available for all cases, the first line read "to the parents of" and the second line listed the sampled student's name. The third line then listed the name of the sampled parent if available. The last two lines gave the parent's address. In instances where parent address was unavailable, the Parent Questionnaire was mailed to the student's permanent or local address. The second mailing, was mailed to alternate file addresses if available.

## Exhibit 6-1. NPSAS mailing schedule

**PARENT SURVEY**

|  | DATE | NUMBER SENT |
|---|---|---|
| **WAVE 1:** |  |  |
| First mailing | 5/18 | 22,746 |
| Mailgram | 6/1 | 22,746 |
| Second mailing | 6/12 | 20,600 |
| **WAVE 2:** |  |  |
| First mailing | 6/10 | 3,155 |
| Mailgram | 6/24 | 3,155 |
| Second mailing | 7/2 | 2,780 |
| **WAVE 3:** |  |  |
| First mailing | 7/6 | 4,668 |
| Mailgram | 7/20 | 4,668 |
| Second mailing | 7/22 | 4,239 |

## 6.3.2 Technical Assistance

Like the student survey, parent mail survey booklets gave a toll-free number for parents to call if they had any questions about the survey or needed assistance in completing it. In order to hold down costs and make efficient use of trained personnel, this number was the same number and rang into the same bank of three phones (with answering machine) that were used to handle student survey calls.

The parent mailing schedule overlapped with the final three waves of the student survey. Therefore, calls were being received on both surveys at the same time, though student calls were declining in number. Interviewers who were handling student survey questions were given a manual that included question-by-question specifications for answering parent survey questions and a brief question-and-answer session was held as training. Interviewers were already well trained in handling difficult problems and encouraging study participation.

During the parent survey period, two interviewers were on each of two weekday shifts and one Saturday shift. On days of high volume, staff was augmented to three or four interviewers. The two weekday shifts ran from 8:30 a.m. to 9:00 p.m. and the Saturday shift went from 10:00 a.m. to 6:00 p.m.. When the volume of calls declined toward the end of the survey period, staff was decreased as was the length of shifts.

Interviewers handled an average of sixteen calls per day in the one hundred and nine days of operation between May 18 and October 7. Volume fluctuated from zero calls to over two hundred and ten calls per day. Volume was always greatest after a mailgram mailing. In general, more calls were received during the afternoon. From May through July, fifty nine percent of parent calls occurred in the afternoon, twenty-six percent occurred in the morning, and fifteen percent were received in the evening.

Documentation procedures for calls from parents were the same as those for student calls. Interviewers documented all calls on a form. A supervisor reviewed the forms and handled problem cases. The forms were then coded according to the type of questions(s) asked. Callers had either general comments and questions regarding the survey or questions about how to answer specific questionnaire items. Table 6-1 indicates the types of general questions and comments that we received.

Table 6-1. General Questions/Comments to Toll-Free Interviewers

| Questions | Number |
|---|---|
| Did not receive survey | 374 |
| Refusal | 217 |
| Older/independent student | 206 |
| Said sent survey in | 133 |
| Deceased parent | 111 |
| Student gives parent address | 94 |
| Student: Do not contact parents | 85 |
| Complains/comments (non-refusal) | 84 |
| Parent lives in foreign country | 75 |
| Deadline | 51 |
| Explain study | 50 |
| Student is ineligible | 44 |
| Sampling/eligibility | 38 |
| Study voluntary | 17 |
| Non-parent sampled in error | 15 |
| Language problem | 14 |
| Refusal conversions/partials | 13 |
| Estimating answers | 12 |
| Missing/defective material | 11 |
| Parent doesn't have info on student | 5 |
| Student aid questions | 5 |
| Miscellaneous | 81 |
| Trc-NRF-related calls | 2 |
| Total | 1,737 |

The largest number of queries were a response to mailgrams and second mailings. Three hundred and seventy four parents said that they had not received the Parent Questionnaire and two hundred and six parents said that they had already sent the questionnaire in.

Refusals also accounted for a large share of parent calls even though interviewers encouraged all parents to complete the survey. Reasons for refusal varied and are shown in Table 6-2.

Table 6-2. Reasons for parent refusals

| Reason | Number |
|---|---|
| Too confidential | 32 |
| Too old/infirm | 27 |
| No time/personal problems | 25 |
| Student non-aided/denied aid | 22 |
| Student independent/older | 17 |
| Survey too long | 11 |
| Tired of forms | 6 |
| Other/not specified | 77 |
| Total | 217 |

A large number of calls also came from parents who felt that they did not need to complete the questionnaire because their son or daughter was an older and/or independent student. Interviewers encouraged these parents to complete the survey.

Other calls also came from students who indicated that their parents were deceased, or that both parents were living in a foreign country. We received calls from students who had received the Parent Questionnaire. Some gave us a corrected parent address and others indicated that they did not want us to contact their parents. Only about four percent of all technical assistance questions were from parents who needed help answering the questionnaire.

### 6.3.3 Postmaster Returns

Personnel who were handling student postmaster returns began working on parent survey postmaster returns after the parent surveys began to go out in May 1987. As on the student survey, they also handled remail requests from the technical assistance operation and from the Telephone Research Center's telephone survey operations.

The operation continued through September 1987. During this period, 3,487 pieces of returned mail and 1,719 remail requests, involving about twelve percent of all surveyed parents, were received. A postmaster return was received for about three and one half percent of the first and second mailings and for about four percent of the mailgrams.

To aid in the operation, a computer file containing a record for each surveyed parent with all available valid addresses was set up. This locater file also recorded all remailing dates and addresses and aided in the computer generation of new mailing labels.

When possible, remails were sent, first, to a forwarding address provided by the postal service or an updated address provided by the TRC or technical assistance operation. If such an address were unavailable, the remail was sent to addresses that students had provided on the student survey, to valid alternate addresses on the computer locater file, or to addresses that had been obtained by calling the student or parent. Returned mailgrams were not remailed as such, but instead, an additional second mailing was sent if one had not already been processed as a postmaster return.

Surveys were remailed to 3,025 parents, including parents who requested remailing from telephone survey or technical assistance interviewers. About sixty percent of these surveys were mailed to new addresses that had been obtained from the student survey, telephone tracing, correspondence, TRC update, or forwarding addresses on returned mail. The rest were mailed to valid alternate addresses on the parent locater computer file.

About twenty-one percent of all parents with one or more postmaster returns were non-locatable. Attempts to obtain current parent addresses on the student survey or during student survey data retrieval were not successful. Older students, especially, were reluctant to give out their parents' address.

### 6.4 Telephone Nonresponse Followup

The second phase of parent data collection involved a telephone survey of a subsample of parents who did not respond to the mail survey. Westat's Telephone Research Center conducted the survey during the period lasting from August to December 1987. Operations and contact procedure for the survey were identical to operations for the student telephone survey (see section 5.4). Most of the interviewers for this survey were experienced TRC interviewers. Many had worked on the student telephone survey or student survey data retrieval. The interviewers were trained in one two-day training session.

## 6.5 Data Preparation

Parent survey data preparation included receipt processing, scan-editing, data entry, critical item check, data retrieval, and Computer Assisted Coding and Editing.

Staff received mail and telephone questionnaires for processing. Figure 6-1 shows that procedures for these surveys were somewhat different from procedures for student surveys.

### 6.5.1 Parent Survey Receipt Control System

The parent mail survey receipt control system was a file indexed by the parent's assigned Westat I.D. The file contained fields for receipt date, status code, date to data retrieval, date from data retrieval, batch number, batching date, date to data entry, and date from data entry.

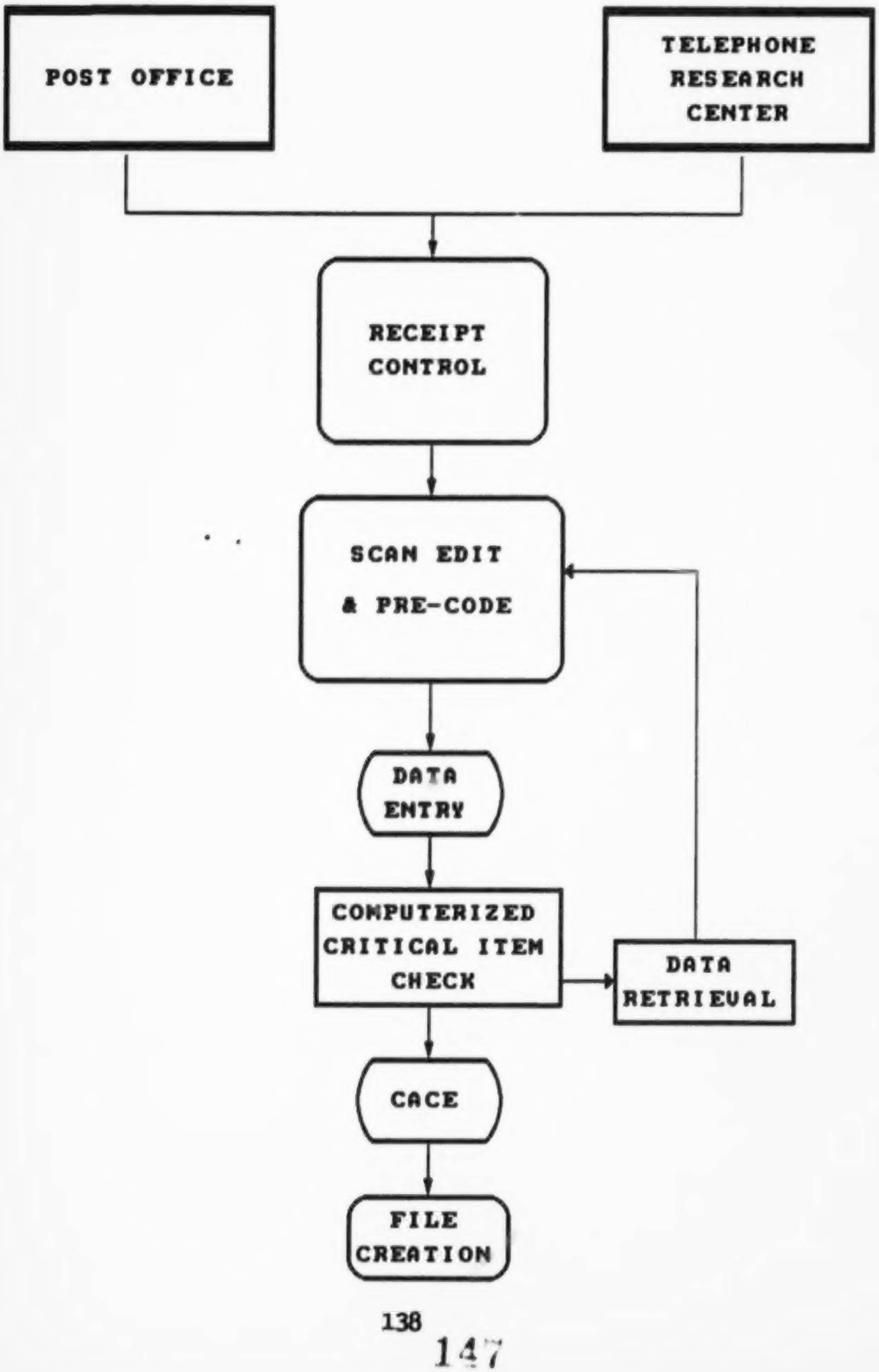
### 6.5.2 Receipt Processing

Mail Survey

Parent Questionnaires began to be received in May 1987. Upon receipt, the questionnaires were separated into five categories: complete, refusal, ineligible, deceased, and problems. Each day, staff created a data file of I.D. numbers for all completed cases received. A computer program was then used to update the parent receipt control file with received data and a status code indicating completion. Clerical staff updated the receipt control system separately for all other status types after the cases were reviewed by a supervisor. Duplicates were deleted during the updating process.

Figure 6-1

# NPSAS PARENT DATA FLOW


POST OFFICE
TELEPHONE RESEARCH CENTER
RECEIPT CONTROL
SCAN EDIT & PRE-CODE
DATA ENTRY
COMPUTERIZED CRITICAL ITEM CHECK
DATA RETRIEVAL
CACE
FILE CREATION

Surveys that were received without their identifying labels were examined for clues to identify respondents. At the end of the survey period about twenty-five cases were still unidentified. These surveys could not be receipted or keyed as valid data.

Phone Survey

Clerical staff daily examined all TRC transmittal sheets and survey forms. They made sure that the respondent's name on the survey form matched all other records transmitted. They then created data files of I.D. numbers for each of six status types--complete, refusal, ineligible, language problem, deceased, and non-locatable. Next, they ran a computer program that updated the phone survey receipt system for each parent.

### 6.5.3 Scan-editing

After receipt processing, personnel scan-edited all completed questionnaires. All editing was done in red pencil. Scan-editing involved general scanning only. Scan-editors examined the forms and changed all answers filled with a dash to zero. They rounded up all fractional numbers and took the midpoint of range answers.

### 6.5.4 Data Entry

All questionnaires, whether complete or in need of data retrieval, were batched and then to data entry. Each batch control sheet was scanned for accuracy before data entry. Data entry was handled by subcontractors or Westat's own data entry area. Data entry included complete double-key verification. One machine readable file was requested for each batch of forms. This allowed a maximum level of control and verification with minimal effort needed to recover errors.

When batches of forms were returned, staff manually checked for missing forms using batch control sheets and checked to assure that each case had been keyed with the correct identification number. The receipt system was updated to indicate that the forms had been returned. The forms control manager also checked the batch folders against the accompanying data tape label to verify that all of the batches were indicated on data tape labels. The forms control manager then logged the tapes on a control sheet showing data received, tape identification number, and the numbers of the batches on the tape.

### 6.5.5 Critical Item Check and Data Retrieval

Upon return from data entry, the questionnaire data was run through a computerized critical item check. Any missing or out of range items were identified by this check. These items were then marked on the critical item checklist, and the checklist was attached to the questionnaire and sent to the Telephone Research Center for data retrieval. The receipt system was updated to indicate the date sent to data retrieval, the date returned, and a final status. The results of the data retrieval were incorporated into the database, upon return from the phone center, by using the CACE (Computer Assisted Coding and Editing) system.

Very few of these questionnaires had data retrieval items; therefore, there was not an extensive data retrieval effort. Data retrieval contact and operations procedures for the parent survey were identical to procedures used for the student survey (see section 5.5.4).

Upon their return from the phone center, data retrieval cases were checked once more by scan-editors. Scan-editors then prepared the cases for data entry and updated the receipt system.

### 6.5.6 CACE

Following any necessary data retrieval, data from data entry was loaded into the CACE system (see section 4.1.4.7). The system edited both ranges and logics. The data was corrected, overridden, or deleted according to predetermined specifications. A final verification of out of range variables and logics was done manually to ensure accuracy.

## 6.6 Response Rates

Of the 13,423 parents responding by mail or telephone, 7170 responded by mail and 6,253 responded by telephone. The major reason for parental non-response was that address information was incomplete or unavailable in school records or in student survey responses so that parents could not be properly located. Where a parent address was not directly available, the student permanent address and student local address were used to try to reach parents by mail. Tables 6-3 and 6-4 describe the weighted response rates and overall weights for institutions, students, and parents.

Table 6-3. Weighted response rates for Institution, Student and Parent Questionnaire

| | | Institution response rate | Student Questionnaire response rate | Parent Questionnaire response rate |
|---|---|---|---|---|
| Type | Control | | | |
| Doctoral | Public | 95.3% | 75.5% | 66.1% |
| Doctoral | Private | 93.6% | 71.4% | 62.1% |
| 4-year | Public | 97.0% | 74.5% | 62.9% |
| 4-year | Private | 92.2% | 76.5% | 68.2% |
| 2-year | Public | 96.0% | 65.6% | 54.9% |
| 2-year | Private-not for Profit | 93.8% | 67.8% | 65.8% |
| 2-year | Private-for Profit | 97.3% | 70.9% | 64.6% |
| Under 2-year | Public | 72.6% | 67.9% | 48.1% |
| Under 2-year | Private-not for Profit | 89.2% | 62.3% | 53.6% |
| Under 2--year | Private-for Profit | 86.7% | 60.7% | 46.5% |
| Total for all students | | 94.6% | 71.1% | 61.6% |

Note: These are the weighted response rates at each level of surveying. The overall rates reported in Table 6-2 are products of the institution response rates a;nd the appropriate survey response rates.

Table 6-4. Overall weighted response rates for Institution, Student and Parent Questionnaire

| Type | Control | Institution response rate | Overall Student Questionnaire response rate | Overall Parent Questionnaire response rate |
|---|---|---|---|---|
| Doctoral | Public | 95.3% | 72.0% | 62.9% |
| Doctoral | Private | 93.6% | 66.8% | 58.0% |
| 4-year | Public | 97.0% | 72.2% | 60.9% |
| 4-year | Private | 92.2% | 70.4% | 62.7% |
| 2-year | Public | 96.0% | 63.0% | 52.6% |
| 2-year | Private-not for Profit | 93.8% | 63.6% | 61.7% |
| 2-year | Private-for Profit | 97.3% | 69.0% | 62.7% |
| Under 2-year | Public | 72.6% | 49.3% | 34.8% |
| Under 2-year | Private-not for Profit | 89.2% | 55.6% | 47.8% |
| Under 2--year | Private-for Profit | 86.7% | 52.7% | 40.3% |
| Total for all students | | 94.6% | 67.2% | 58.2% |

Note: These are the overall weighted response rates. The student response rate is the product of the Institution and Student Questionnaire rates in Table 6-1. The Parent response rate is the product of the Institution and the Parent Questionnaire rates in Table 6-1.

## 7. FILE CREATION AND DATA ANALYSIS

### 7.1 Overview of 1987 NPSAS Files

1987 NPSAS data files were delivered to NCES beginning in September, 1987, and concluding in December, 1988. The in-school NPSAS components (Updated Fall Records, Student Survey, and Parent Survey) involved the delivery of 14 files during this period. In addition, a NPSAS institution file, coding file, and other miscellaneous files were delivered to NCES. Most NPSAS data files were of one of the following types:

- *Preliminary Data Files.* Files delivered prior to April, 1988 were mostly used by NCES for data checking and to help formulate final editing and measurement tasks. Preliminary files delivered after that time were suitable for producing analyses for publication, with the qualification that minor changes would be made to the final files.
- *Final Data Files.* A final data file with complete codebook documentation was delivered for each 1987 NPSAS in-school component as follows: Parent Survey (July, 1988), Updated Fall Records Data (October, 1988), Student Survey (October, 1988).
- *"Public Release" Files.* In order to increase the "user friendliness" of NPSAS files, and to allow further variable creation and derivation based on final data files, an additional round of file modifications were specified by NCES and resulted in new versions of the Updated Fall Records Data File and the Student Survey Data File in December, 1988. These files were used by NCES to created final public release files including NCES derived variables.

An important objective of these files was to give NCES the earliest possible delivery of NPSAS data in order to allow complete data quality verification at an early stage. Another objective was to allow NCES to give key data users access to preliminary files so that they could ask questions and suggest improvements. NCES held several meetings to discuss file content, structure, and weighting with users. Figure 7-1 presents a NPSAS data file summary prepared by Westat for one of those meetings.

1987 NPSAS DATA FILES

September 30, 1988

| Data File | N Observations | File Contents | Estimation Weight | Inference Population | | Usage Notes |
|---|---|---|---|---|---|---|
| | | | | Size in thousands (1) | Description | |
| Student Survey Data File (Preliminary File, May, 1988) | 43,176 NPSAS sample students responding to the student survey | student questionnaire data, updated record abstract data, NCES derived variables | ST-FWGT | 12,580 | All NPSAS eligible postsecondary student enrolled in Fall, 1986 | Estimates produced using updated record abstract items may differ from those produced using the Updated Fall Records Data File because of nonresponse to the student survey |
| Student Survey Data File (Final File, December, 1988) | 43,176 NPSAS sample students responding to the student survey | student questionnaire data, updated record abstract data, NCES derived variables, imputation for missing values in selected abstract items | VST-FWGT | 12,580 | All NPSAS eligible postsecondary students enrolled in Fall, 1986 | Estimates produced using updated record abstract items may differ from those produced using the Updated Fall Records Data File because of nonresponse to the student survey |
| Updated Fall Recods Data File (Final File, November, 1988) | 59,886 NPSAS sample students | updated record abstract data, imputation for missing values in selected abstract items | VFIR-WGT | 12,580 | All NPSAS eligible postsecondary students enrolled in Fall, 1986 | Estimates produced using this file may differ from certain estimates produced using the student survey data file (see above) |
| Parent Survey Supplement File (Final File, August, 1988) | 13,423 parents of NPSAS sample students excluding independent students age 25 or older and students whose parents had a foreign address | parent survey data | VPAR-WGT | 8,495 | All NPSAS eligible postsecondary students enrolled in Fall, 1986 except independent student age 25 or older and students whose parents had a foreign address | The NPSAS parent survey was designed to provide additional family financial information for certain types of students, especially dependent unaided students. This file must be merged with the Student Survey File or the Updated Fall Records File for this purpose. |
| Academic Year Adjusted Weights File (Final File, August, 1988) | 14,612 undergraduate Federally aided students in the NPSAS student sample | Academic year estimation weight to be merged with the Updated Fall Records Data File. | ADJ-FAWT | 4,322 | All Undergraduate, Title IV aided students enrolled at any time during the 1986-87 academic year | This file must be merged with the Student Survey data file and cases not having a value for ADJ-FAWT should be dropped leaving 14,612 cases. Estimates produced using ADJ-FAWT are limited to undergraduate, Title IV aided students and are based on subject to the unverified assumption that students enrolled at any time during the academic year have characteristics similar to those enrolled in the fall. For certain items and certain categories of students this assumption may not be appropriate. |
| Institution File (Final File, November, 1988) | 1,074 Eligible NPSAS Institutions | Identifying information, IPEDS institution ID, selected IPEDS and other data for NPSAS institutions | INST-WGT | 9.24 | All NPSAS eligible institutions | In some cases the definition of an institution in NPSAS may very from definitions used in other surveys or programs. |

1 Estimated inference population size = sum of estimation weight.

Figure 7-1. 1987 NPSAS data files

## 7.2 Establishing Common File Layouts for Mail and Telephone Surveys

Both the Student Survey and the Parent Survey included data collected by mail and telephone. Although the mail and telephone instruments were made as similar as possible, certain data items and skip patterns were not identical due to the different method of administration. Therefore, a "crosswalk" was produced that mapped the telephone instrument items and skip patterns to the mail instruments for each survey. This activity involved considerable effort, as it was necessary to ensure that each telephone survey item was correctly mapped to its corresponding item on the mail survey, that skip patterns were correctly mapped, and that each data value appearing for each variable was properly mapped.

The production of a final crosswalk was an iterative process, involving several reviews by NCES and test runs before the data were modified. Following a final successful test run, the crosswalk was used to re-format and recode the telephone survey data to be consistent with the mail survey data. A variable appearing on each case in the combined mail-telephone survey data files indicates that the data was collected either by telephone or by mail in order to allow for methodological analysis.

## 7.3 Mass Editing

The Westat Computer Assisted Coding and Editing (CACE) system was used to perform interactive case-by-case editing of survey forms for each NPSAS component. Following this editing process, all data were subjected to "mass editing." This process included batching of the data and re-running all CACE range and logic edits. All edit failures were checked by machine against the CACE status files to verify that any failed edit had in fact been examined and allowed by the CACE operator. For example, a dollar value may have been a few dollars higher than the maximum range specified in the CACE system, thus triggering a range error. In examining the data the CACE operator may have determined that this dollar amount was passable even though it was technically out-of-range. During mass editing this range error would again appear, and would be automatically checked against the CACE status file where a record of the CACE operator's allowance of the data would be found. If a range or logic error was detected during mass edit, and no CACE operator allowance was detected, an appropriate printed output was produced and manually checked against the original data collection form.

Following this mass edit review of CACE editing, unweighted frequency distributions were produced for all variables. Outliers in the distributions were identified, and their individual data were printed and compared with original data collection forms (regardless of CACE operator allowances). The purpose of this exercise was to provide an independent check on the reasonableness of range specifications used in CACE, and to detect systematic CACE operator errors in allowing out-of-range values. In some cases the originally specified range limits were modified as a result of this process.

The mass editing process also included examination of unweighted crosstabulations of the data from each survey. These were designed to detect inconsistencies in the data beyond those that were the focus of the CACE logic edits.

The major objectives of mass editing were to provide a second check on earlier CACE editing, and to search for systematic statistical patterns in the data that could not be detected in the case-by-case editing within the CACE system. Regular mass editing reports were produced consisting of a listing of each variable, its currently specified range, the number of cases above the range, below the range, and with missing values, and the number of cases manually checked and corrected. These reports were reviewed by NCES in order to guide decisions about revisions to range specifications and further examination of suspicious data patterns.

In each NPSAS survey, the mass editing process confirmed that the data entry quality and CACE editing process were operating within acceptable error tolerances, with one exception. This exception involved the keying of dollar amounts terminated by one or more zeros. Spaces for recording dollar amounts on the records, student, and parent forms usually included a pre-printed ".00" to encourage respondents to report only whole dollar amounts. While this had the intended effect on the respondents, it caused some problems when key entry operators keyed the ".00" but omitted the decimal point. While the number of errors of this kind was not large, it was sufficient in some variables to make the number of keying errors slightly larger than the acceptable error limit. A special mass editing procedure was used to identify these cases and to insert decimal points as appropriate.

## 7.4 Coding of Literal Responses

A number of items on the Record Abstract Form, the Student Survey form, and the Parent Survey form, did not include pre-coded responses. For example, occupation, employer's type of business, and names of postsecondary schools to which the student applied, were written-out by respondents. In addition, an "other-specify" category appeared within certain pre-coded items, such as program of study. This permitted respondents to record their response when they could not associate it with one of the pre-coded values.

Literal responses were keyed as they appeared on the data collection forms in order to permit later computer-assisted coding of the responses. While this approach adds to the cost of keying, it substantially reduces the cost of data preparation because a coding operation is not needed at this stage. When coding did occur after data entry, it was possible to use a method that was more efficient.

Following initial data editing, a list of all variables with literal responses was submitted to NCES for review and designation of those variables to be assigned coded values. One advantage of not having pre-coded the data was that numbers of literal responses and lists of those responses could be easily produced and reviewed in order to decide which variables to code, and which coding schemes to use.

After the variables to be coded were designated and the coding schemes were identified, the appropriate literal string values were extracted from the data files into separate coding files. These files were "de-duplicated" to eliminate multiple occurrences of the same literal strings. For example, several hundred respondents may have responded "nurse" to their job title, but only one occurrence of this string would appear in the de-duplicated coding file.

Coding files were loaded onto microcomputers and a full-screen coding review and data entry system was used to permit training operators to assign a code value to each literal string. Because all duplicate literal strings had been eliminated from the coding files, the process involved many fewer coding operations than would have been necessary if the data were coded prior to data entry.

Coder training and operations were supervised by senior Westat staff coding specialists, and a highly experienced consulting coding specialist. Reviews and evaluations of coder work were conducted on a coder-by-coder and cross-coder basis and inter-coder reliability was measured and compared with levels found acceptable by the U.S. Bureau of the Census and other organizations. A coding file was not finalized until all reviews were passed.

Following the assignments of codes in a coding file, the code values were merged onto the data files using the literal string value as the merge key. In other words, all occurrences of "nurse" on coding file were merged with all occurrences of "nurse" on the data file and the coded value of "nurse" was thereby added to the data file.

Although the merge operation itself was straightforward, a number of additional analyses and checks were performed after code values were merged. The principle revision necessary at this point was to "other-specify" categories. In a number of cases the literal string entered by a respondent to one item under "other-specify" indicated that the respondent misinterpreted the item, and perhaps should have recorded this response elsewhere on the form, or in one of the pre-coded categories. Some of these problems were anticipated in the coding process itself by specifying special code values for items where the literal string clearly indicated that the response should be "moved" to somewhere else on the form. Figure 7-2 summarizes the movement of coded literal responses ("new code") for three student survey questionnaire items at one stage in the coding process.

Following finalization of all coding, and delivery of files with both literal string and coded values on preliminary data files, the literal string values for coded variables were deleted from deliverable files. However, a special file consisting of all literal string values for each case and all coded values corresponding to each literal string value was produced and submitted to NCES as a project methodology file.

## 7.5 Measurement

In most large-scale surveys there are a number of data items appearing on data collection instruments that need to be combined, scaled, recoded, or otherwise manipulated to produce final analytically useful "derived" variables. In creating NPSAS files the general principle

NPSAS STUDENT SURVEY

PROPOSED RECODING OF "OTHER SPECIFY" CATEGORIES AND MOVEMENT OF DATA VALUES

| NEW | | S65A4 | | | | S65B5 | | | | S65C5 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CODE | | code | n | uted n | move to | code | n | uted n | move to | code | n | uted n | move to |
| F1 | Federal | 1 | 492 | 122,281 | S65A1 | 1 | 288 | 58,832 | S65B1 | 2A | 1 | 181 | S65C2A |
| F2 | Federal | | | | | 2 | 669 | 108,828 | S65B2 | | | | |
| S | State | 2 | 188 | 51,327 | S65A2 | 3 | 7 | 1,338 | S65B3 | 2b | 0 | 0 | S65C2B |
| I | Institutional | 3 | 576 | 126,731 | S65A3 | 4 | 70 | 13,939 | S65B4 | 2c | 4 | 1,022 | S65C2C |
| CP | Corporation | 41 | 124 | 35,867 | | 51 | 3 | 721 | | 52 | 2 | 458 | |
| FN | Foundation | 42 | 308 | 68,819 | | 52 | 13 | 1,628 | | 53 | 5 | 945 | |
| E | Employer | 43 | 69 | 19,782 | | 53 | 29 | 6,400 | | 3 | 19 | 4,405 | S65C3 |
| U | Union | 44 | 20 | 4,008 | | 54 | 1 | 418 | | 54 | 1 | 65 | |
| FT | Fraternal Organization | 45 | 76 | 17,491 | | 55 | 8 | 2,804 | | 55 | 0 | 0 | |
| CM | Community, Ethnic, Rel. | 46 | 434 | 87,148 | | 56 | 38 | 5,883 | | 56 | 21 | 4,200 | |
| GF | Foreign or Internat'l | 49 | 28 | 6,346 | | 58 | 18 | 4,062 | | 62 | 4 | 911 | |
| AS | Associations | 50 | 140 | 30,807 | | 64 | 2 | 83 | | | | | |
| 01 | Other or unknown | 47 | 256 | 63,377 | | 57 | 84 | 16,524 | | 57 | 24 | 4,267 | |
| 02 | Other federal | | | | | | | | | 2e | 5 | 1,589 | |
| 03 | Other state | | | | | | | | | 2f | 12 | 3,987 | |
| AF | Military | | | | | | | | | 4 | 22 | 7,966 | S65C4 |
| WS | Work Study | | | | | | | | | 1 | 33 | 7,933 | S65C1 |
| IF | Institutional | | | | | | | | | 51 | 55 | 13,190 | |
| NM | National Merit | 48 | 49 | 10,551 | | | | | | | | | |
| LP | Personal/private loan | | | | | 59 | 99 | 19,823 | | | | | |
| 6A | Self | | | | | | | | | 6a | 5 | 808 | |
| ML | -- (to be moved) -- | 5b | 45 | 10,595 | S65B5 | | | | | 5b | 15 | 4,320 | S65B5 |
| MA | -- (to be moved) -- | 5c | 96 | 25,788 | S65C5 | 61 | 9 | 2,255 | S65C5 | | | | |
| MS | -- (to be moved) -- | | | | | 60 | 36 | 7,186 | S65A4 | 5a | 88 | 18,582 | S65A4 |
| MI | -- (to be moved) -- | 3a | 14 | 3,140 | S65C5 | | | | | 65 | 73 | 18,134 | |
| R1 | Residual ML,MA,MS,MI | 51 | 13 | 3,270 | S65C5 | 62 | 11 | 3,008 | | 58 | 1 | 154 | |
| R2 | Welfare/AFDC | | | | | | | | | 59 | 19 | 4,657 | |
| R3 | Family and friends | | | | | | | | | 61 | 24 | 6,282 | |
| JT | "Manpower", JTPA | | | | | | | | | 60 | 58 | 23,905 | |
| J | Job | | | | | | | | | 63 | 21 | 5,493 | |
| OLD TOTAL | | | 2928 | 687328 | | | 1385 | 253732 | | | 512 | 133454 | |
| INTO | | | 124 | 25768 | | | 60 | 14915 | | | 119 | 31183 | |
| OUTOF | | | 155 | 39523 | | | 45 | 9441 | | | 103 | 22902 | |
| NEW TOTAL | | | 2897 | 673573 | | | 1400 | 259206 | | | 528 | 141735 | |

Figure 7-2. NPSAS student survey proposal recoding of "other specify" categories and movement of data values.

was to include all "raw" survey responses, albeit in a form that edited and coded the data to eliminate obvious errors and to allow some convenience in dealing with the data.

Two variables on the updated fall records data file required special attention because of their scale. Credit hours were reported in various units, such as semester, quarter, and clock hours. GPA was likewise reported on various scales, such as a 0-4 point scale or a 0-100 point scale. For each of these variables a scaled version of the variable was created and included in the data files to facilitate analysis. GPA was converted to a four-point scale divided into categories corresponding to common GPA conversion practices in the higher education community. Credit hours were converted to an annualized semester hour scale. Detailed reports on each of these scaling activities are included in Appendix B.

In another measurement activity, Westat investigated student expense reporting patterns for food and housing. A series of "flag variables" was specified to identify possible scales used by students in reporting these values since some students apparently reported annual values, while others reported for a semester or other time period. In the process of creating these flags certain inconsistencies in student responses were also identified and indicated by flag values. Appendix C includes a report on this activity. The flag values were not directly included on the NPSAS files, but were superceded by NCES derived variables (see below) relating to student expenses.

### 7.6 NCES Derived Variables

NCES produced a number of derived variables for analytic use, and to permit users to replicate published reports. Westat's role in producing these variables was minimal, and principally involved merging the variables supplied by NCES onto the data files.

### 7.7 Statistical Imputation

Statistical imputation is the process whereby missing data is replaced by non-missing values without recontacting respondents. As it was applied in NPSAS, statistical imputation involved identifying which variables were to be imputed, what other NPSAS sources for the same case could provide data to substitute for missing values, and then to use hot-deck imputation to impute any remaining missing values from similar cases within NPSAS.

It was decided that imputation would only be done for certain updated fall records abstract items. Initially it was proposed that imputation would only be done for aided students since much of the records abstract data is not available for non-aided students making the base for imputing data very limited. NCES requested that Westat attempt imputation for all students rather than only aided students, and this was done. However, the evaluation of the results of this more extensive imputation revealed serious problems, particularly in imputed values for income.

Following the initial imputation activity, a revised subset of imputed variables was specified by NCES and some revisions to the imputation process were specified. Appendix D reports on the imputation for each of the variables in the final subset delivered with the December, 1988 final NPSAS files.

## 7.8 Analysis

The primary analyses of 1987 NPSAS data are being conducted by NCES. In support of those analyses, Westat has produced "ED TABS" entitled "Student Education Expenses" which use NCES derived variables to average self-reported student expenses of various types by institutional sector and by characteristics of students.

University Research Corporation, as a subcontractor to Westat, has produced descriptive analyses of independent students under old and new definitions of dependency, and of federal financial aid distribution. In the production of these reports and in other discussions with data users during the same period, a number of methodological issues surrounding the measurement and use of expected family contribution (EFC) have arisen. As the 1987 NPSAS files are released for analysis, NCES continues to meet with users concerning the analytic uses of the data, and continues to bring resources to bear on fully utilizing 1987 NPSAS data as well as improving the data in the next NPSAS study.

# 8. WEIGHTS AND VARIANCE

## 8.1 Weighting

A weight is attached to every student abstract, student questionnaire, and parent questionnaire record in the NPSAS files. These weights are used to make national estimates of the number of postsecondary students from the data files. Since the abstract and the student questionnaire weights are both used to estimate the number of postsecondary students enrolled in the Fall of 1986, the sum of the weights of the students (which is the estimated total number of students) for these files are equal. For the parent questionnaire the sum of the weights is only about two-thirds of the sum of the weights from the abstract and student questionnaire files, because the parents of some students were excluded from the scope of this survey.

The methods used for producing the weights and for estimating the sampling variability of the estimates are described in the following sections. The weighting scheme for the abstract records is discussed first. The abstract weights are then used in the development of the student questionnaire and the parent questionnaire weights. Variance estimation for the estimates from each of the surveys are discussed last.

### 8.1.1 Abstract Weights

The base weights were formed by multiplying together the inverses of the probabilities of selection at the various stages. The base weight for the institution is given by equation (1) of Section 3.3.3 after initial selection probabilities have been modified for special cases (multi-campus schools, the New York supplemental sample, and duplicate schools described in Section 3.3.4). The base weight for the student is simply the base weight of the institution multiplied by the inverse of equation (3) from Section 3.4.4. The base weight for student m can therefore be represented as

$$W_{hijklm} = \left(P_{hi} P_{jk} P_{lm}\right)^{-1} \quad (4)$$

where the probabilities have been previously defined. These weights could be used to produce unbiased estimates of the population if all of the institutions and the students were respondents. Because of nonresponse, adjustments were made in these weights.

### 8.1.1.2 Nonresponse Adjustments for the Abstract Weights

Nonresponse for the abstract data is almost exclusively a function of the school response rate. On one end of the spectrum, the sampled PSUs do not contribute to the nonresponse, since we were able to go to all sampled PSU's. On the other end of the spectrum, once we had the cooperation of the school, we typically were allowed to sample from all students and to abstract data from the records. In only two schools were there any problems in obtaining access to the records data for some students. For these two schools a within-school weight adjustment was made to account for the within school response rate. Therefore, vast majority of the nonresponse problem for the abstract weights is related to the school participation.

The overall unweighted response rate based on the number of institutions is 93 percent. Taking the weights into account, the overall weighted response rate is 95 percent. Adjusting the weights given by (4) for this nonresponse is what is needed to produce the abstract weights.

Two methods were used to adjust for nonresponse. For institutions which could be matched to the institutions in a 1985-86 HEGIS/1986-87 IC3 file constructed for this purpose, a ratio estimation technique was used. This method not only adjusted for institution level nonresponse, but also greatly reduced the variance of estimates of totals for matched institutions. Most two and four or more year schools are matched. For the schools which were not matched to schools on the HEGIS/IC3 file, a simple nonresponse adjustment was made that did not have the affect of reducing the variance for estimated totals. The methods are described below.

Simple unbiased estimates of the number of students unadjusted for nonresponse can be produced by class (defined below) by applying the base weights to the sample counts from the abstract data file. The estimates by class (c) are

$$y_c' = \sum w_{hijklm} y_{(c)hijklm}. \quad (5)$$

where the sum is over all respondents, and $y_{(c)}$ is equal to 1 for every respondent in class c, and zero otherwise. These estimates are called unbiased because they would be unbiased estimates for class c if every institution responded.

A similar set of estimates can be made from another independent source using the same sample of schools selected for NPSAS. The HEGIS/IC3 file is the independent source used for this purpose. The unbiased estimates are formed as

$$x_c' = \sum W_{hijk} x_{(c)hijk}. \quad (6)$$

In this case the summation is over all of the institutions in the sample, except for the nonrespondents. The actual count of the total number of students in class c in the HEGIS/IC3 file is obtained by summing over the entire file. This count is denoted as $X_c$.

The ratio adjustment factor is just the total HEGIS/IC3 count divided by the estimated count from HEGIS/IC3 using the NPSAS sample schools. This ratio is expressed as

$$r_{c1} = X_c / x_c' . \qquad (7)$$

The adjusted estimate for the number of students in class c from the group of matched institutions using NPSAS abstract data is then

$$y'' = r_{c1} \cdot y_{c1}' . \qquad (8)$$

Note that any matched school that was out-of-scope for NPSAS (such as the Naval Academy) is still included in the numerator and denominator of equation (7). Such schools are not included in the estimates from the NPSAS sample, the $y'$.

Any other estimate for this group of institutions can be produced by using these same procedures. This is operationalized by modifying the base weights. The final weight that is attached to the student abstract record for a student in a matched institution is rewritten as the ratio adjustment for the class times the base weight

$$W_{(c1)hijklm} = r_{c1} \cdot W_{hijklm}. \ (9) .$$

The classes used in the ratio estimation procedure must be mutually exclusive and exhaustive. Another restriction is that classes must be ones that can be derived from the HEGIS/IC3 file. To effect the greatest reductions in the variability of the estimates of totals, the classes used should be as closely related to the estimates of interest that will be produced from NPSAS. The list below summarizes the classes used, where the class is defined from information derived from the HEGIS/IC3 file, not from the NPSAS sample school data file. These classes are subsets of the student level strata.

**Ratio Adjustment Classes**

(1) undergraduate students in public, PhD granting institutions

(2) graduate students in public, PhD granting institutions

(3) first professional students in public, PhD granting institutions

(4) undergraduate students in private, PhD granting institutions

(5) graduate students in private, PhD granting institutions

(6) first professional students in private,PhD granting institutions

(7) undergraduate students in public, other 4-year institutions

(8) graduate students in public, other 4-year institutions

(9) undergraduate students in public, other 4-year institutions

(10) graduate students in public, other 4-year institutions

(11) students in public 2-year institutions

(12) students in private, non-profit 2-year institutions

(13) students in proprietary 2-year institutions

The other nonresponse adjustment was carried out for institutions which did not match the HEGIS/IC3 universe. In fact, the match on schools in the less than two-year classes were so poor that the entire nonresponse adjustment for these institutions was based on this methodology. The nonresponse adjustment for this group was simply the weighted total number of students in a class divided by the weighted number of students in participating institutions in the same class, where the numbers of student used in computing the ratio adjustment are from the telephone contact.

The estimator for the students from the nonmatched institutions in class c is written as

$$y''_{c2} = y'_{c2}\frac{z'_{c2(R)} + z'_{c2(NR)}}{z'_{c2(R)}} . \qquad (10)$$

The fraction on the right hand side of equation (10) is the nonresponse adjustment for students from nonmatched institutions. The value of z' is the weighted number of institutions and the subscript in parentheses on the z' indicates if the institution was responding (R) or nonresponding (NR). The final weight for a student in a nonmatched institution is just the base weight given by equation (4) multiplied by this fraction. This can be written as

$$W_{(c2)hijklm} = r_{c2} \cdot W_{hijklm} \qquad (11)$$

where $r_{c2}$ is the fraction from the right-hand side of equation (10).

The overall estimate for class c is the sum of the estimates from the matched and nonmatched institutions. This is represented as

$$y''_{c} = y''_{c1} + y''_{c2} \cdot \qquad (12)$$

### 8.1.2 Student Questionnaire Weights

Since all the students who were sampled for the record abstract were also sampled for the student questionnaire survey, the estimates from the abstract and questionnaire files should be comparable. In fact, if every sample student responded to the student questionnaire, then no separate student questionnaire weighting would be necessary - the abstract and student weights would be identical. Of course, not every student responded, thus creating the need for student questionnaire weights that differ from the abstract weights. In fact, only 43,176 student questionnaires were obtained from the 59,886 students for whom abstract data were obtained. This is a 72 percent unweighted and 71 percent weighted response rate for this stage of the survey.

The purpose of developing students weights was to reduce the mean square error of the estimates, especially the bias component of the mean square error. If the unadjusted abstract weights were used to form estimates from the student questionnaire data, then the estimated number of students would be biased downward by about 30 percent due to nonresponse. A single nonresponse adjustment is not sufficient because there is a reasonable suspicion of differential response patterns. The proportion of students who responded varies by up to a factor of two depending upon the characteristics of the students. A nonresponse adjustment method which accounts for the rate of nonresponse by type of student helps reduce biases in the estimates.

As a by-product of reducing the mean square error of the estimates, the nonresponse adjustment made the estimates from the abstract and student questionnaire databases approximately equal for major subclasses of students.

#### 8.1.2.1 Nonresponse Adjustments for the Student Questionnaire Weights

The weighting cell adjustment method of nonresponse adjustment was chosen for the student questionnaire data. This method was chosen for two reasons. First, the method is simple to apply, can be accomplished quickly, and has been used by Westat in many other studies. Second, the large number of respondents (43,000) enabled Westat to form weighting cells which are relatively homogeneous (and therefore reduce bias) and yet still have enough respondents to eliminate the potential increases in variance associated with a large number of weighting cells.

This method resulted in student questionnaire estimates that corresponded exactly (within rounding errors) to the abstract estimates for the cells or marginals that were used to control the adjustment process.

The most critical step in the process of adjusting for nonresponse is the creation of the cells for the weighting adjustment. The weighting cells should take into account the types of statistics that will be produced from the survey and the mechanisms that influence the probability of a student responding to the survey. The experience from the pilot study indicated that there were several factors that satisfied these conditions. In particular, the type and control of institution attended, aid status, and dependency status were highly associated with these characteristics.

In the 1986-87 NPSAS, the Fall abstract database is a very useful source for classifying the students into cells for nonresponse adjustment. The fact that abstract data were collected from almost all sampled students is what makes this source of data so very valuable. Data for both respondents and nonrespondents is needed in order to form weighting cells and make the nonresponse adjustments.

The Fall abstract variables that were used to form the weighting cells were type and control of institution, level of student, aid status, dependency status, age, full-/part-time status, and race. Below, the definition of the variables used to form the cells and the specific weighting cell definitions formed are discussed.

The type and control of institution were combined to form a Stratum variable with 10 levels (PhD/public, PhD/private, other four-year/public, other four-year/private, two-year/public, two-year/nonprofit, two-year/for profit, less than two-year/public, less than two-year/nonprofit, and less than two-year/for profit).

Level of student was used only for students from four or more year institutions. Level was taken from R21a and had up to four levels (undergraduate, graduate, first professional, and unclassified).

Aid, dependency status and age were combined into a Dep/Age variable using R25 and R13. Only aided students responded to R25, so the age variable was used as a surrogate for dependency status. The four levels of the Dep/Age variable corresponded to a cross of aid status and dependency status (aided/dependent or dependency not specified, aided/independent, not aided/born before 1964, and not aided/born after 1963).

The Full-/Part-time status variable was derived from R22 and had two levels (full-time, and part-time and not specified). The Race variable was reduced to two levels from R14 (white, nonwhite).

It should be noted that the definitions of the variables were largely driven by the way they were constructed on the abstract questionnaire form. For example, the dependency status for unaided students had to be approximated from the year of birth because dependency status was collected only for aided students. Some of the variables were categorized into a reduced number of levels after the distribution of response rates were examined for the fuller classifications. The reduction in the number of levels was necessary in order to use as many of the variables as possible in the construction of the weighting cells. For example, the six levels of race had to be reduced to two levels that have substantive meaning and a strong relationship to the response rate.

The crossing of the variables resulted in 320 cells which were then collapsed into the 200 cells that were used for the adjustment. The collapsing was needed to insure a minimum unweighted cell size of 20 students. Of the 200 weighting cells, 133 were formed among the four year or higher institutions and 67 were formed from the other institutions.

The adjustment factor for each cell is equal to the sum of the abstract weights for all the students (both responding and nonresponding) divided by the sum of the abstract weights for the responding students. The adjustment factor for cell t can be written as

$$A_t = \frac{\sum_{i \varepsilon R} W_{ti} + \sum_{i \varepsilon NR} W_{ti}}{\sum_{i \varepsilon R} W_{ti}} \qquad (13)$$

where $i \varepsilon R$ indicates summation over the respondents, $i \varepsilon NR$ indicates summation over the nonrespondents. $W_{ti}$ is a shortened representation of the abstract weight for student i in cell t, based upon either equation (9) or equation (11).

The student weights are found by multiplying the abstract weight for a responding student by the adjustment factor for the appropriate cell. This can be written as

$$W_{ti}^{*} = A_t W_{ti} \qquad (14)$$

### 8.1.3 Parent Weights

One of the objectives of collecting data from the parents of a subsample of the student sample for NPSAS was to be able to produce estimates of the number of students by the characteristics of their parents. In particular, the financial characteristics of the parents were considered to be of paramount concern. Because of this concern, nearly all the parents of dependent students with no family income from the Fall record data collection form were included in the parent sample.

It is important to recall that the population of students for whom parent data were collected is not the same as the population of all NPSAS eligible students. The population was restricted in two deliberate ways. First, all students who were 25 years old or older and who were independent of their parents (both characteristics were based on the Fall abstract data) were eliminated from the target population. Second, students whose parents' had an address outside of the United States were excluded from the target population.

*One consequence of these restrictions was that the estimates of the number of students from the abstract data and student questionnaire data (which result in identical estimates of the total number of students) are larger than the estimates of the number of students using the parent data and weights.* The reduction in the estimated number of students is directly attributable to the decision to exclude parents of some students from the target population.

The definition of the target population raises another very important issue. That issue is the relationship between the response status of the student and that of the parent. In order to examine this issue, the responses to the Student Questionnaire and the responses from the Parent Questionnaire were tabulated. Approximately 14,000 parents responded to the mail or telephone questionnaire. About 2,400 of these responding parents are associated with nonresponding students, i.e., students who did not complete the Student Questionnaire. In other words, about 17 percent of the parents who returned the Parent Questionnaire were parents of nonresponding students. This result suggests that parent weights could be developed for all the paernts who responded, or for only those responding parents of students who also responded. In fact, both of these parent weights were created. In the following description, references are made to the parent weights appropriate for all parents who responded, regardless of the status of the Student Questionnaire. There are 13,423 such respondents. The same procedures were used to produce the parent weights for the subset of responding parents for whom there was also a completed Student Questionnaire. There are 11,121 such respondents.

The handling of parents who are deceased or who have had no relationship with the student for the last few years is another related topic. Clearly, knowledge that the parents were deceased or had not had any financial or material involvement with the student (referred to as "immaterial" parents) was an important piece of information. These parents were not considered to be nonrespondents, because knowing that they were not providing financial support for the students was the most important of the findings from the parent sample. Thus, the deceased and "immaterial" parents were included as respondents. The data record for these parents is completely blank except for certain ID information and weighting fields. There is a variable that indicates the status of these parents as being either deceased or "immaterial." This is an important factor for both weighting and file structure.

One parent weight was created for each student for whom there was a completed Parent Questionnaire (including the deceased and "immaterial" parents). Another parent weight was created for each student who responded to the Student Questionnaire and for whom there was a completed Parent Questionnaire. The weights were used to form estimates of the target population as defined above. These estimates were smaller than the estimates of all students eligible for NPSAS.

### 8.1.3.1 Nonresponse Adjustments for the Parent Questionnaire Weights

The first step in forming the basic sampling weight is the determination of the probability of selection of the students for the parent sample from the 59,886 in the population (here population refers to those students already sampled for NPSAS). The sampling rate that was applied to the students are given in Chapter 3 by category used in the sampling process. The basic parent weight is the inverse of this rate times the abstract weight. The weight for the subsampling of parents can be written as

$$S_{qi} = \frac{1}{r_{qi}} \qquad (15)$$

where $r_{qi}$ is the rate applied to student i in cell q. The subscripts indicating earlier stages of sampling (area, institution, and student) have been eliminated for ease of presentation.

The rates that determine the basic weight (15) were adjusted because all dependent, aided students with missing data for the Abstract adjusted gross family income item were sampled with certainty. The value of (15) is unity for these students. Also, any graduate or first-professional student who was not sampled in the first step was subjected to a second sampling stage. The rate for these graduate and first professional students was $r_{qi} \cdot (2-r_{qi})$.

The next step in the formation of the parent weights was the adjustment of the subsampling weight to take into account the subsampling of nonrespondents for telephone followup. Only dependent, unaided students who were undergraduates and in four-year or public two-year institutions and whose parents had not responded to the mail questionnaire were subsampled. Since a simple systematic sample of 50 percent of these nonrespondents were subsampled, the revised basic weight can be written as

$$S'_{qi} = \frac{1}{r_{qi}} v(i) \qquad (16)$$

where v(i) is a function that equals 0.5 if student i was eligible for subsampling and was subsampled, equals 0 if the student was eligible for subsampling and was not subsampled, and equals 1 if the student was not eligible for subsampling.

The sum of the weights given by formula (16) over all students equals 59,886, the number of students sampled in NPSAS. The sum actually differs slightly due to sampling error, but this difference is trivial and a post-stratification adjustment was made to eliminate the difference completely.

In order to make estimates of the population of all students, the Abstract weight must be multiplied by equation (16). This can be written as

$$W^{**}_{qi} = S'_{qi} \ W_{qi} \qquad (17)$$

where $W_{qi}$ is the Abstract weight for student i in cell q defined earlier. The sum of these weights over all 59,886 students estimates the total number of NPSAS students. The difference between this estimate and the estimate from the abstract file is due to sampling error.

The next adjustment to the total number of students was the exclusion of students who were determined to be out-of-scope (parents associated with independent students who were 25 years old or older as of October 1, 1986, and parents at foreign addresses). The total number of parents dropped from 12.6 million students to 8.5 million students because of this scope restriction. Nearly one third of the student universe is excluded by the change in scope. As discussed earlier, the proportion of students that were dropped is very dependent upon the type of student.

The final step in the process of adjusting for parent nonresponse. The weighted response rate was 62 percent for this stage of the sample, excluding the institutional nonresponse factor. The overall response rate was obtained by multiplying the response rate to the Parent Questionnaire by the response rate at the institution level.

The parent nonresponse adjustment was done by creating cells for the weighting adjustment and the application of the adjustment to the parents within those cells. The abstract record variables that were used to form the weighting cells for the Student Questionnaire adjustment were used as the starting point in the construction of the weighting cells for the survey of parents. The cells were collapsed where necessary so that the minimum size in a cell was 20 unweighted cases. Collapsing across the aid and dependency status of a student was avoided wherever possible. The 200 cells used in the weighting the Student Questionnaire data were collapsed into 157 weighting cells for the Parent Questionnaire.

The final parent weight was computed by multiplying the weight given in formula (17) by the inverse of the weighted response rate to the Parent Questionnaire by weighting cell. The final parent weight can be written as

$$W_{ci}^{***} = W_{ci}^{**} R_c^{-1} \qquad (18)$$

where $R_c$ is the response rate for cell c.

The potential bias in the estimates of the restricted population due to nonresponse is very significant because of the level of nonresponse. One factor that should be considered is the appropriateness of the weighting cells. The cells were formed by first setting up institutional type and control, level of student, dependency/age, full-time, and race categories. The formation of the weighting cells was done most often by collapsing the race cell. If family financial information is to be estimated, then it might be worth considering weighting cells formed in other ways. Of course, the nonresponse bias will remain a significant factor for estimates from this survey regardless of the weighting cells.

Other weighting cells were not formed because the family financial information collected in this study was intended primarily to be a source for imputing data to the abstract level. The parent weights given in formula (18) should not be used in this process. In fact, the weights are only intended to be used for the analysis of items exclusively on the Parent Questionnaire, such as whether or not the parent saved for the child's postsecondary education. Even for these estimates, the population being inferred to is not the entire population of students because of the scope restrictions. All of these factors must be taken into explicit account in using the parent weights.

## 8.2 Variance

There are a number of methods for computing estimates of the variances of the statistics produced from complex sample designs ( i.e., multi-stage, stratified, cluster samples with varying probabilities of selection). The jackknife replication method was chosen for NPSAS. The jackknife is a replication technique which can be implemented with an existing software package that is available on the Department of Education's computer system and is familiar to many survey practitioners in the Department.

Due to the design of the sample, a stratified jackknife replicate approach was used. Two primary units were selected from each of H strata ($h=1,2,...,H$). The first replicate was formed by deleting one unit at random from the first stratum, doubling the weight of the remaining unit in the stratum, and using all units from the other strata. This procedure was then followed for each stratum resulting in H replicates each of which produces an estimate of the population total.

For NPSAS 34 strata were formed for variance computation purposes and consequently 34 replicates were constructed. Each of the 34 variance computation stratum is composed of a pair of noncertainty PSUs, some pairs of noncertainty institutions of each type/control, and some certainty schools of each type/control in which the students have been split to form pairs.

Estimates of sampling errors from the stratified jackknife approach described above can be produced from the SAS procedure called PROC WESVAR. This is a user supported procedure that can be used for either BRR or jackknife variance estimation methods. The package was developed by Westat specifically for these types of applications. The JK2 option is appropriate for this procedure.

### 8.2.1 Variance Estimation - Abstract Data, Student Questionnaire, and Parent Questionnaire

A stratified jackknife replicate approach was used to estimate the variances of estimates from the abstract data. The general stratified jackknife approach assumes two primary units are sampled from each stratum with probability proportional to size (of course other designs within strata such as simple random sampling can be adapted to this requirement). Assuming two primary units ($i=1,2$) are selected from each of H strata ($h=1,2,...,H$), the first replicate is formed by deleting one unit at random from the first stratum, doubling the weight of the remaining unit in the stratum, and using all other units from the other strata. This procedure is followed for each stratum resulting in H replicates each of which produces an estimate of the population total. Let the full sample estimate for some characteristic be $\theta'$, and let $\theta_h'$ by the estimate from the replicate in which a unit from stratum h is deleted and the other doubled. The jackknife estimate of the variance of $\theta'$ is given by

$$\text{est. var}(\theta') = \sum_{h=1}^{H}( \theta_h' - \theta' )^2 .$$

This technique was applied to the NPSAS multi-stage sample design as follows. For the noncertainty PSUs there are 35 strata with two PSUs per stratum. Since the sample from New York had to be handled separately due to the supplement, one of these strata was eliminated. Thus, there are 34 strata for variance computation purposes ($H=34$) and consequently 34 replicates. Each variance computation stratum formed in this manner had the required pair of primary units.

The first-stage sampling units in the noncertainty PSUs were institutions (in a few cases two or three campuses of an institution). They were divided into two groups: noncertainty institutions, and certainty institutions. The noncertainty institutions were stratified by type/control and size before sampling. To simulate this full-sample selection procedure, the noncertainty institutions from the certainty PSUs were ordered by the original stratification variables and then assigned in pairs to each of the 34 variance computation strata. The certainty institutions were ordered by type/control and size and then sequentially assigned to a variance computation stratum. The full sample of students within a certainty schools was divided into halves, thus forming the pair for the variance computation stratum.

The sample from New York State was handled differently because of the supplemental sample drawn for this State. The effect of the between noncertainty PSU component of variance was eliminated from the estimate of the variance. The reason for this approximation was because the between PSU component was small and it creates computational difficulties. There are several justifications for believing the between noncertainty PSU component is small for the New York sample. First, the supplemental sample was selected from a list of institutions in the State and no area clustering was used. Even for the original sample from New York the between PSU contribution was small. Eight of the 17 PSUs formed n the State were certainty PSUs. These certainty PSUs (along with the certainty institutions sampled before the PSUs were formed) contained over 75 percent of the total number of institutions and enrollment in the State. Therefore, the between PSU component was based on only a small fraction of the entire population in the State. Also some between PSU component was retained for the one stratum composed of institutions from New York and other states.

The institutions in New York were all handled as either certainty institutions or as noncertainty institutions in certainty PSUs. As such they were spread across the 34 variance strata pairs in the same process as all other certainty institutions or noncertainty institutions in certainty PSUs.

Each of the 34 variance computation strata was composed of a pair of noncertainty PSUs, some pairs of noncertainty institutions of each type/control, and some certainty schools of each type/control in which the students had been split to form pairs. The variances of the overall national estimates were based upon approximately 34 degrees of freedom which is quite adequate for most purposes. The 34 degrees of freedom was only approximate. Each replicate had approximately the same number of students and the number of students was expected to be roughly proportional to the sampling variance of most estimates. Also, the major domains were spread approximately equally across replicates so that the variance estimates for each domain had nearly the full 34 degrees of freedom.

Each step of the estimation procedures were followed in producing the replicate estimates. Therefore, the nonresponse adjustments were recomputed for each replicate for both the institutions which matched to HEGIS/IC3 and for those that did not. This procedures includes some of the nonresponse adjustment variability in the estimates derivied from the replicate estimates.

The student and parent replicate weights were formed in the same manner. The replicates defined by the abstract records were used in these weighting procedures. The replicates for these surveys include the sampling variability from all stages of sampling and estimation.

### 8.2.2 Generalized Variances

The computation of sampling errors for each estimated of interest can be a time-consuming and costly effort in a multipurpose survey such as NPSAS. Therefore, simpler methods of approximating the sampling error of statistics from NPSAS were evaluated. These methods, typically referred to as generalized variance methods, make the approximation of standard errors possible without having to resort to the direct methods and specialized software discussed earlier.

The approximation of sampling errors using generalized variances are discussed in this section. It should be realized that the approximations from the generalized variances are not appropriate for all types of estimates. In particular, the generalized variances should not be used with continuous variables, such as average tuition, or total amount of financial aid awarded. However, within the realm of their applicability, the approximate sampling errors derived from the generalized variances can be very helpful for NPSAS data users. The generalized variance approach to approximating standard errors for estimates of total number of students and of proportions of students is appropriate, and this application is described below.

Generalized variances were independently studied for three types of students for NPSAS: undergraduate students, graduate students, and first professional students. The approximations of sampling errors resulting from these studies were adequate for undergraduate and graduate students. For the first professional students the approximations were deemed inadequate for presentation. The standard errors for estimates of all students, regardless of level in school, may be conservatively estimated by using the undergraduate generalized variance approximations.

Table 8-1 and Table 8-2 give the parameters necessary to use the generalized variances to approximate the sampling errors for undergraduate and graduate students based upon the respondents to the Student Questionnaire. The parameters of the generalized variance models were estimated using a weighted least squares approach. Some examples are given below to illustrate the use of these tables.

**Example 1- Estimated number of undergraduate students**

Suppose the estimated number of postsecondary undergraduates who obtained federal aid in the Fall semester is 3,335,000. Using the coefficients a and b from the row labeled "All" in Table 8-1 (-0.000011 and 1427.8, respectively), the standard error of this total, denoted X, is approximated by:

$$\begin{aligned} \text{Standard error} &= (aX^2 + bX)^{1/2} \\ &= \{-0.000011(3{,}335{,}000)^2 + 1427.8(3{,}335{,}000)\}^{1/2} \\ &= 68{,}000. \end{aligned}$$

The 95 percent confidence interval associated with this estimate is found by adding and subtracting twice the standard error from the estimate. In this case the 95 percent confidence interval is from 3.2 million to 3.5 million recipients.

**Example 2 - Estimated number of graduate students**

Suppose the estimated number of graduate students in public institutions taking 15 to 19 credit hours is 47,000 students. Using the coefficients a and b from the rows labeled "Public" in Table 8-2 (0.000803 and 320.8, respectively) the standard error of this total, denoted X, is approximated by:

$$\begin{aligned} \text{Standard error} &= (aX^2 + bX)^{1/2} \\ &= \{-0.000803(47{,}000)^2 + 320.8(47{,}000)\}^{1/2} \\ &= 4{,}100. \end{aligned}$$

### Example 3 - Estimated proportion of undergraduate students

Suppose the estimated proportion of postsecondary undergraduate students taking 15 to 19 credit hours in the Fall semester is 0.25. Table 2-5 shows that the square root of the design effect (DEFT) for public institutions is 1.69 and the sample size (n) for these institutions is 17,568. The standard error is approximated by:

$$\begin{aligned}\text{Standard error} &= \text{DEFT}\ \{p(1\text{-}p)/n\}^{1/2}\\ &= 1.69\ \{0.25(1\text{-}0.25)/17{,}568\}^{1/2}\\ &= 0.0055.\end{aligned}$$

The 95 percent confidence interval associated with this estimate is found by adding and subtracting the standard error from the estimate. In this case the 95 percent confidence interval is from 0.24 to 0.26.

**Table 8-1. Estimated parameters for approximating standard errors of undergraduates from NPSAS**

| Institutional characteristic | Sample size | a | b | DEFT |
|---|---|---|---|---|
| All | 34,882 | -0.000011 | 1427.8 | 2.05 |
| Public | 17,568 | -0.000081 | 1771.5 | 1.69 |
| Private, not-for-profit | 13,355 | 0.000217 | 776.2 | 2.78 |
| Private, for-profit | 3,959 | 0.003648 | 525.1 | 3.73 |
| Less than 2-year | 3,189 | 0.008344 | 667.8 | 1.79 |
| 2-year | 7,314 | 0.000076 | 1766.1 | 1.09 |
| Other 4-year | 11,501 | 0.000568 | 565.5 | 1.09 |
| Doctoral | 12,878 | 0.000541 | 335.7 | 0.85 |
| Doctoral, public | 7,231 | 0.000376 | 421.3 | 1.41 |
| Doctoral, private, not-for-profit | 5,647 | 0.003448 | 218.1 | 1.94 |
| Other 4-year, public | 5,509 | 0.001277 | 405.8 | 1.70 |
| Other 4-year, private, not-for-profit | 5,992 | 0.000594 | 606.6 | 2.21 |
| 2-year, public | 4,312 | 0.000020 | 2008.0 | 1.33 |
| 2-year, private, not-for-profit | 1,523 | 0.020734 | 345.8 | 3.12 |
| 2-year, private, for-profit | 1,479 | 0.015871 | 170.3 | 1.47 |
| Less than 2-year, public | 516 | 0.090499 | 576.6 | 1.60 |
| Less than 2-year, private, not-for-profit | 315 | 0.131697 | 46.9 | 1.98 |
| Less than 2-year, private, for-profit | 2,358 | 0.005819 | 678.8 | 1.60 |

Table 8-2. Estimated parameters for approximating standard errors of graduate students from NPSAS

| Institutional characteristic | Sample size | a | b | DEFT |
|---|---|---|---|---|
| All | 5,139 | 0.000712 | 221.0 | 1.20 |
| Public | 2,312 | 0.000803 | 320.8 | 1.09 |
| Private | 2,827 | 0.003217 | 123.8 | 1.33 |
| Other four year | 1,562 | 0.008168 | 77.3 | 1.38 |
| Doctoral | 3,577 | 0.000307 | 258.6 | 1.15 |
| Doctoral, public | 1,601 | 0.000599 | 321.1 | 1.07 |
| Doctoral, private | 1,976 | 0.000583 | 154.2 | 1.19 |
| Other four year, public | 711 | 0.004873 | 328.8 | 1.17 |
| Other four year, private | 851 | 0.040571 | 96.5 | 1.70 |

# 9. SUMMARY AND RECOMMENDATIONS

1987 NPSAS required a wide range of methods in design, sampling, data collection, data preparation and processing, file creation, and analysis. In several respects the size and complexity of 1987 NPSAS required methodological adaptation and innovation, particularly where schedules were compressed to correspond with the academic year or to coordinate one study component with another.

The previous chapters of this report have presented the major features, and where necessary detailed features, of the 1987 NPSAS methodology. What has not been presented in many cases is the process by which the methodology was developed, such as through pilot tests, experimentation, and iterative refinement of methods when they were first applied. Standard methods of project management and process quality monitoring, and adaptations of the methods, were required to ensure timely and correct results in each phase of the project.

This chapter presents a number of recommendations growing out of the experience of 1987 NPSAS. Of course, there is no area of the study that could not be commented upon with the aim of improving methods and management in the future. There is always room for improvement. But there are certain areas where recommendations are more critical than others, either because they point to difficulties that in hindsight could, and perhaps should, have been avoided, or because future studies may have the opportunity to avoid some of the constraints of 1987 NPSAS and will, therefore, be able to extend beyond some of the limitations of 1987 NPSAS. It is these types of "critical recommendations" that are presented below.

Recommendations are presented for each of the major study activities corresponding to chapters 2 through 8 in this report. As this chapter was being written (December, 1988), the 1990 NPSAS study was already in its early stages. However, these recommendations are written with reference to the 1987 NPSAS study, and have not been formulated with the intent of necessarily reflecting what is known at this point about the design of 1990 NPSAS. Some recommendations are relevant to more than one topic (chapter), but they are only presented once below.

Recommendations such as these, especially where a large and complex study is concerned, always include an element of subjective judgement, and do not always represent a consensus among the study sponsors, the study managers and methodologists, the operations personnel, or the several audiences for the data. Therefore these recommendations are presented in the spirit of inspiring rather than concluding discussions that will lead to the improvements that can be made in future NPSAS studies.

## OVERALL DESIGN

1. The overall design of 1987 NPSAS involving sampling of students through postsecondary institution enrollment lists, records extraction from institution records, a student survey, a parent survey, and a separate out-of-school loan recipient survey, is consistent with the objectives stated for the NPSAS study, and should be continued.

2. The representation of all students enrolled at any time during an academic year, rather than only those students enrolled during the fall, should be considered a high priority item in future NPSAS designs.

3. Given certain limitations in the sampling frame and locating information for the out-of-school student loan recipients component of NPSAS, special consideration should be given to the analytic objectives and design of this important component. Careful evaluation and analysis of the data produced for this component in 1987 NPSAS will be very important for this purpose. (These data just became available at this writing).

## IN-SCHOOL SAMPLE

4. The sampling stages (area, institution, student) in 1987 NPSAS are necessary, and should be continued. Future NPSAS studies should consider sampling plans that will produce overlap between areas and institutions in order to reduce variance in estimates of change.

5. If a single, consistent sampling frame of postsecondary institutions can be obtained, it should be used in preference to the frame building activities that were necessary in 1987 NPSAS. This will greatly facilitate the sampling operations, and even more importantly, the comparison of NPSAS basic estimates (e.g. enrollments) with other data sources based on the same frame.

6. Whatever sampling frame is used, institutional contacting should continue to be used to confirm, and where necessary revise, the type, control, enrollment counts, or other critical institutional data used within NPSAS. Although this

may lead to some minor inconsistencies in the NPSAS classification of a school and its classification in other studies, these minor differences are more than offset by the benefits of ensuring schools and data users that the NPSAS study is as up-to-date and accurate as possible.

7. Issues of what constitutes a single school, a campus, a system, etc., arise in NPSAS as in all postsecondary education studies. NPSAS could be a vehicle for placing more emphasis on refining and publishing existing definitions, and on presenting standard procedures for dealing with these issues in the context of study objectives.

8. Given the large number of institutions that responded to the option of submitting enrollment lists in order to have student sampling done prior to the field visits, this option probably should become the preferred approach in the future, but the option of having field data collectors perform sampling at schools should also exist.

9. A systematic review and presentation of the relationship between NPSAS institution and student eligibility rules and eligibility rules in other selected data systems (e.g. Pell) should be performed and presented in study documentation with a summary of implications for analysts.

10. Special consideration needs to be given to the question of adequately representing students of various levels in the sample, preferably by knowing student level at the time of sampling and designing appropriate sampling rates and operations. Where this is not possible, continual monitoring of sample yields with procedures to immediately adjust the sampling procedures accordingly need to be implemented to avoid the need for later augmentations to the student sample.

11. The purpose of the parent-supplied data needs to be carefully re-examined in order to determine the best subsampling plan for parents, and to ensure that the inference population of students for whom parent data will be available is the best one to meet analytical objectives.

## UPDATED FALL RECORDS DATA

12. The Records Abstract form should be reviewed and revised to eliminate unused items, to further emphasize locating information for students and parents, and to better facilitate data preparation and processing of dollar amounts.

13. Particular attention should be given to revising the records abstract form in the areas of "SAR" information, including the EFC amount. The implicit goal of the 1987 NPSAS instrument to obtain the components of EFC to allow its recomputation needs to be critically examined from the standpoint of actual financial aid office practices and uses of the EFC. Caution is needed in defining the objectives of the NPSAS data to avoid the appearance of

mechanical precision in the way in which student and family characteristics help to determine financial aid awards.

14. The need to obtain financial aid data from institutions at two points in time (fall and end of academic year) should be avoided if at all possible within the objectives of the study. Full academic year financial aid award amounts should probably be the focal point for data collection. However, the relationship of such awards to student/family financial and demographic information obtained at different points in time needs to be considered in the design.

15. Training materials for institution data collection should be significantly improved in the area of technical reference and instruction concerning institution records data.

16. The use of institution-appointed NPSAS coordinators should be continued and enhanced, with appropriate levels of training, written materials, and reimbursement for efforts given full consideration.

17. Alternatives to key-entry should be considered for records abstract data where appropriate and cost effective.

18. If some form of "records updating" is required, original as well as updated values should appear in at least one deliverable file.

19. The degree to which the data obtained from institution central administrative records meets study objectives needs to be assessed. For certain categories of students, e.g. graduate students, other forms of financial support not recorded in central offices should be considered.

## STUDENT SURVEY

20. Revisions to the student questionnaire should be considered to increase the reliability of self-reported financial data, and to reduce the level of completely missing data (e.g. IRS 1040 income) wherever possible through the use of proxy items.

21. Given the response levels to the student mail survey, and the subsequent success in telephone interviewing to substantially increase response levels, consideration should be given to an all-telephone methodology for the student survey.

22. A fairly comprehensive analysis of data quality and response patterns to the student survey should be produced and revised at various points in the survey, and should become a final published reference source at the time of data release.

## PARENT SURVEY

23. The issue of the precise purposes of the parent survey data as supplemental to the abstract data, or as related to an inference population in its own right should be addressed and used to guide the parent subsampling, questionnaire design, and file creation process.

24. More attention should be given to the demographic facts of divorce and remarriage in defining "parents". Reference should be made to Title IV financial aid program practices, census bureau practices, and operational practices in financial aid offices.

25. Additional levels of effort should be considered to obtain locating information for parents from institutions, from students, and from other locating sources.

26. Given low response levels to the parent mail survey, and the relatively greater success of the telephone efforts, consideration should be given to an all-telephone survey of parents.

27. A cost-benefit analysis of the possibility of cross-form data consistency checking, with appropriate resolution activities, between parent, student, and records data should be undertaken.

## FILE CREATION AND DATA ANALYSIS

28. File contents and interrelationships should be layed out as early as possible and user involvement, perhaps in the form of a NPSAS data users group, should be organized and regularly solicited throughout the study.

29. 1987 NPSAS information on responses and coding results for literal variables should be used in designing forms to continue to minimize the need for literal string coding, and to improve item wording in pre-coded items.

30. Measurement and data assessment activities, including imputation and producing derived variables, should be explicitly included as a step between preliminary file creation and final file creation. Within practical limits, allowance should be made for these to be iterative rather than one-time activities involving review and inputs from selected operations, analysis, and "outside" experts.

31. Consideration should be given to producing a flow of short data analysis reports on limited topics using preliminary versions of the data, with major reports reserved for more final releases of the data.

32. Resources and time should be allowed for the production of final public release files and documentation following finalization of the data but prior to final public release.

33. Consideration should be given to technologies that will permit data users to access the large and complex data files with relatively limited computing resources.

## WEIGHTS AND VARIANCES

34. The ratio adjustment method should be reviewed and some sensitivity analyses performed.

35. The production and use of sampling variances for various survey components and sub-populations should be explicated in a special document, with an emphasis on a tutorial approach and illustrative analyses, for data users.

36. Where possible, systematic comparisons to other data sources should be produced and presented in a published report and in user documentation.

# APPENDIX A

# NPSAS DATA COLLECTION INSTRUMENTS

# NATIONAL POSTSECONDARY STUDENT AID STUDY
## STUDENT SAMPLING WORKSHEET

School label

Date: _____/_____/_____
MO DAY YR

1. What type of records are available for sampling?

| | |
|---|---|
| List(s) | 1 |
| Card or folder files | 2 |
| Other | 3 |

2. How are the student records sorted (i.e., last name, academic level, major program, etc.)?

______________________________

______________________________

3. Use the table below to further describe the records used for sampling.

| LIST/ DRAWER # | DESCRIPTION OF CONTENTS | NUMBER OF STUDENT RECORDS | CUMULATIVE RECORD COUNT |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |

4. Approximately how many ineligible students are enrolled at this school?

# INELIGIBLE STUDENTS: ____________

5. What is the actual enrollment for this school (excluding ineligible students)?

A. Undergraduate: ____________

B. Graduate: ____________

C. First Professional: ____________

Total ☐

# NATIONAL POSTSECONDARY STUDENT AID STUDY
# STUDENT SAMPLE LISTING SHEET

School label

DATE SAMPLED: _____/_____/_____ (MO DAY YR)

PAGE _____ OF _____

THIS FORM CONTAINS:
- UNDERGRADUATE . . . . . ☐
- GRADUATE. . . . . . . . ☐
- FIRST PROFESSIONAL. . . ☐

TARGET SAMPLE: __________________

ACTUAL SAMPLE: __________________

| | | | | | ELIGIBILITY CHECK | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Is this student enrolled in a: | | | | | | | |
| | | | | | high school program? | | courses for credit? | | degree or formal award program? | | occupationally specific program? | |
| | I.D. # | HIT # | STUDENT NAME | SOCIAL SECURITY # | YES | NO | YES | NO | YES | NO | YES | NO |
| 1. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 2. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 3. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 4. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 5. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 6. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 7. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 8. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 9. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 10. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 11. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 12. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 13. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 14. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| 15. | | | | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

NATIONAL POSTSECONDARY STUDENT AID STUDY

# RECORD ABSTRACT FORM

1. School Name: ______________________ / ______________________
Westat Student ID No.

2. Student's Name: ____________________________________________
(Last) (First) (MI) (Maiden Name)

3. Student's Social Security No.: ______ - ______ - ______

4. **School Assigned Student ID No.:** ______________________

5. Student's Local Address: ______________________________
Street (Apt)
______________________________
City State Zip

6. Student's Local Telephone No.: (______) ______________________
Area Code

7. Student's Permanent Address: ______________________________
Street (Apt)
______________________________
City State Zip

8. Student's Permanent Telephone: (______) ______________________
Area Code

9. High School Degree or Equivalent:

| Degree | Circle One | Year | |
|---|---|---|---|
| Diploma | 1 | | |
| GED | 2 | 19__ | IF BEFORE 1985, SKIP TO Q11. |
| Certificate | 3 | | |
| Not specified | 9 | | |

10. Student's Last High School: ______________________________
Name
______________________________
Street (Apt)
______________________________
City State Zip

11. Parents' Name & Address: (NOTE TO INTERVIEWER: If records clearly indicate "Parents" check here |__|.
If designation is "Contact in case of emergency" or something similar check here |__|)

| | |
|---|---|
| ______________________________<br>Name | ______________________________<br>Name |
| ______________________________<br>Street Apt. | ______________________________<br>Street Apt. |
| ______________________________<br>City State Zip | ______________________________<br>City State Zip |
| Tel. No: (______) ______________________<br>Area Code | Tel.No: (______) ______________________<br>Area Code |

12. Student's Sex:

| | Circle One |
|---|---|
| Male | 1 |
| Female | 2 |
| Not specified | 9 |

13. Student's Date of Birth: _____/_____/_____
Mo Day Yr

14. Race/Ethnicity:

| | Circle One |
|---|---|
| American Indian or Alaska Native | 1 |
| Asian or Pacific Islander | 2 |
| Black (not of Hispanic origin) | 3 |
| Hispanic | 4 |
| White (not of Hispanic origin) | 5 |
| Not specified | 9 |

15. Student's Citizenship:

| | Circle One |
|---|---|
| U.S. citizen | 1 |
| Resident alien | 2 |
| Non-resident alien | 3 |
| Not specified | 9 |

16. For tuition purposes, is this student classified as in or out of jurisdiction (state, county, district)?

| | Circle One |
|---|---|
| In jurisdiction | 1 |
| Out of jurisdiction | 2 |
| Not specified | 9 |

17. Local Residence:

| | Circle One |
|---|---|
| School owned/controlled housing | 1 |
| In community (off campus, not with parents) | 2 |
| At home with parents | 3 |
| Not specified | 9 |

## FALL ENROLLMENT STATUS

18. What were the total tuition and required fees charged prior to any discounts or allowances (for the fall term or program-specific charges, whichever is appropriate)?

$ ________.00

19. At the beginning of the fall term was this student enrolled on a clock/contact or credit hour basis?

| | Circle One | |
|---|---|---|
| Credit hours | 1 | (Skip to Q21) |
| Clock/Contact hours | 2 | |
| Both | 3 | |

20. As of October 15, 1986, for the student enrolled on a clock hour basis:

| | Program 1 | Program 2 if applicable |
|---|---|---|
| A. What is(are) the name(s) of the program(s) the student is enrolled in? | ________ | ________ |
| B. What is(are) the length of the program(s) in clock hours? | ________ | ________ |
| C. How many hours are scheduled per week? | ________ | ________ |
| D. What was(were) the program(s) starting date(s)? | ________<br>month/year | ________<br>month/year |
| E. What is(are) the program(s) ending date(s)? | ________<br>month/year | ________<br>month/year |
| F. What is(are) the student's total cumulative number of clock hours for this(these) program(s)? | ________ | ________ |

21. At the beginning of the fall term, for the student enrolled on a credit hour basis:

A. What is the student's current academic level?

UNDERGRADUATE

| | Circle One |
|---|---|
| First year, first time enrolled at this school | 1 |
| Other | 2 |

POST-BACCALAUREATE

| | |
|---|---|
| First Professional | 3 |

- Chiropractic
- Dentistry
- Medicine
- Optometry
- Osteopathic Medicine
- Pharmacy
- Podiatry
- Veterinary Medicine
- Law
- Theology

| | |
|---|---|
| Master's Program | 4 |
| Doctoral Program<br>(e.g., Ph.D., Ed.D.) | 5 |
| Unclassified | 6 |

B. How many credit hours was this student enrolled in at the beginning of the fall term? ______________________

C. How many credit hours has this student earned at his/her current academic level (e.g., Undergraduate, Post-Baccalaureate)? ______________________

D. What is the student's cumulative grade point average at his/her current academic level? ______________________

E. What year did this student first matriculate at his/her current academic level (e.g., Undergraduate, Post-Baccalaureate) at this school? ______________________

F. What is the student's field of study or contemplated major?

Specify ______________________

| | |
|---|---|
| Undeclared | 1 |
| Not specified | 9 |

22. At the beginning of the fall term was this student enrolled on a full-time or part-time basis? (Use the school's definition for full-time and part-time.)

| | Circle One |
|---|---|
| Full-time | 1 |
| Part-time | 2 |
| Not specified | 9 |

23. Is this student a transfer student?

| | Circle One |
|---|---|
| Yes | 1 |
| No | 2 |
| Not specified | 9 |

## FINANCIAL AID OFFICE QUESTIONS

**(NOTE TO INTERVIEWER: If there is no financial aid record for 1986-87 for this student in the Financial Aid Office check here |___|, and stop data collection.)**

24. Marital Status:

| | Circle One |
|---|---|
| Married | 1 |
| Separated | 2 |
| Unmarried (Single, Divorced, Widowed) | 3 |
| Not specified | 9 |

25. Dependency Status (for Federal aid purposes as of the fall term):

| | Circle One |
|---|---|
| Dependent | 1 |
| Independent | 2 |
| Not specified | 9 |

26. What is the student's Pell Student Aid Index? ____________

Not specified ...... 9

27. Did the student get a Pell grant?

| | | |
|---|---|---|
| Yes | 1 | |
| No | 2 | (Skip to Q29) |

28. Pell Computation:

| | 1986 - 1987 Amount | Number of months covered by budget |
|---|---|---|
| A. Tuition and fees | $________.00 | |
| B. Room and board | $________.00 | |
| C. Miscellaneous expenses | $________.00 | \|__\|__\| |

OR

D. Not available in financial aid record or financial aid office ....................9

29. **Budget for awarding need-based assistance other than Pell Grants:**

| | 1986 - 1987 Amount | Number of months covered by budget |
|---|---|---|
| A. Tuition and fees | $__________ | |
| B. Room and board | $__________ | \|__\|__\| |
| C. All other expenses | $__________ | |
| OR | | |
| D. Estimated total costs | $__________ | |
| OR | | |
| E. Not available in financial aid record or financial aid office ......................................................9 | | |

CHECK Q25
If the student is
an independent student
skip to Q31

30. **DEPENDENT** Student Family Information

| | Not Specified | |
|---|---|---|
| A. Age of older parent (SAR-Q21) | \|__\| | __________ |
| B. Total number in household in 1986-87 (SAR-Q22) | \|__\| | __________ |
| C. Total number in household in college at least 1/2 time in 1986-87 (SAR-Q23 & Q24) | \|__\| | __________ |
| D. Total number of exemptions claimed by parents (SAR-Q26) | \|__\| | __________ |
| E. Parents' IRS adjusted gross income (SAR-Q27) | \|__\| | $__________.00 |
| F. Parents' Federal income tax paid (SAR-Q28) | \|__\| | $__________.00 |
| G. Parents' deduction for married couple when both work (SAR-Q29) | \|__\| | $__________.00 |
| H. Payment to parents' IRA/KEOGH (SAR-Q30) | \|__\| | $__________.00 |
| I. Parents' itemized deductions (SAR-Q31) | \|__\| | $__________.00 |
| J. Income earned from work -- father (SAR-Q32) | \|__\| | $__________.00 |
| K. Income earned from work -- mother (SAR-Q33) | \|__\| | $__________.00 |

| | | Not Specified | |
|---|---|---|---|
| L. | Parents' total untaxed income and benefits (SAR-Q34 & Q35 & Q36) | ☐ | $________.00 |
| M. | Parents' medical and dental expenses not paid by insurance (SAR-Q37) | ☐ | $________.00 |
| N. | Elementary and secondary school tuition and fees for dependent children (SAR-Q38) | ☐ | $________.00 |
| O. | Parents' expected 1986 total taxable and nontaxable income (SAR-Q39) | ☐ | $________.00 |
| P. | Student's (and spouse's) adjusted gross income (SAR-Q40) | ☐ | $________.00 |
| Q. | Student's (and spouse's) Federal income tax paid (SAR-Q41) | ☐ | $________.00 |
| R. | Student's (and spouse's) untaxed income and benefits (SAR-Q42) | ☐ | $________.00 |
| S. | Student's (and spouse's) savings and net assets (SAR-Q43) | ☐ | $________.00 |
| T. | Parents' cash, savings, checking accounts (SAR-Q44) | ☐ | $________.00 |
| U. | Parents' assets (current worth less amount owed) | | |
| | Home equity (SAR-Q45 less Q46) | ☐ | $________.00 |
| | Other real estate and investment (SAR-Q47 less Q48) | ☐ | $________.00 |
| | Business/farm (SAR-Q49 less Q50) | ☐ | $________.00 |
| V. | Student's expected 1986-87 Veteran educational benefits (SAR-Q55 x Q56) + (SAR-Q57 x Q58) | ☐ | $________.00 |
| W. | Student's (and spouse's) other expected 1986-87 untaxed income and benefits (SAR-Q59) | ☐ | $________.00 |
| X. | Student's (and spouse's) expected summer income (SAR-Q51 AND Q53) | ☐ | $________.00 |
| Y. | Student's (and spouse's) expected school year income (SAR-Q52 & Q54) | ☐ | $________.00 |

**SKIP TO Q32**

31. **INDEPENDENT Student's (and Spouse's) Family Information**

| | | Not Specified | |
|---|---|---|---|
| A. | Total size of student's (and spouse's) household during 1986-87 (SAR-Q22) | ☐ | ____________ |
| B. | Of the total number in student's (and spouse's) household, how many will be in college at least 1/2 time during 1986-87 (SAR-Q23 & Q24) | ☐ | ____________ |
| C. | Total number of exemptions (SAR-Q26) | ☐ | ____________ |
| D. | Student's (and spouse's) IRS adjusted gross income (SAR-Q27) | ☐ | $__________.00 |
| E. | Student's (and spouse's) Federal income tax paid (SAR-Q28) | ☐ | $__________.00 |
| F. | Student's (and spouse's) deduction for married couple (SAR-Q29) | ☐ | $__________.00 |
| G. | Student's (and spouse's) itemized deductions (SAR-Q31) | ☐ | $__________.00 |
| H. | Earned income from work--student (SAR-Q32) | ☐ | $__________.00 |
| I. | Earned income from work--spouse (SAR-Q33) | ☐ | $__________.00 |
| J. | Student's (and spouse's) total untaxed income and benefits (SAR-Q34 & Q35 & Q36) | ☐ | $__________.00 |
| K. | Student's (and spouse's) medical and dental expenses not paid by insurance (SAR-Q37) | ☐ | $__________.00 |
| L. | Elementary and secondary school tuition for dependent children (SAR-Q38) | ☐ | $__________.00 |
| M. | Student's (and spouse's) cash, savings, checking account (SAR-Q44) | ☐ | $__________.00 |
| N. | Student's (and spouse's) assets (current worth less amount owed) | | |
| | Home equity (SAR-Q45 less Q46) | ☐ | $__________.00 |
| | Other real estate and investments (SAR-Q47 less Q48) | ☐ | $__________.00 |
| | Business/farm (SAR-Q49 less Q50) | ☐ | $__________.00 |
| O. | Student's expected 1986-87 Veterans educational benefits (SAR-Q55 x Q56) + (SAR-Q57 x Q58) | ☐ | $__________.00 |

|  | Not Specified |  |
|---|---|---|
| P. Student's (and spouse's) other expected 1986-87 untaxed income and benefits (SAR-Q59) | ☐ | $________.00 |
| Q. Student's (and spouse's) expected summer income (SAR-Q51 & Q53) | ☐ | $________.00 |
| R. Student's (and spouse's) expected school year income (SAR-Q52 & Q54) | ☐ | $________.00 |

32. Expected family contribution

A. Parental contribution $________.00

B. Student's (and spouse's) expected earnings $________.00

C. Contributions from assets $________.00

OR

D. Total expected family contribution (COMPLETE ONLY IF SEPARATE AMOUNTS ARE NOT AVAILABLE FOR ABOVE ITEMS) $________.00

33. GSL family contribution schedule (IF APPLICABLE AND IF DIFFERENT FROM Q32) $________.00

34. Institution's adjusted expected family contribution (IF CHANGES WERE MADE TO THE SYSTEM-CALCULATED FAMILY CONTRIBUTION) $________.00

35. Financial Aid:

A. Federal Aid

|  | Not Specified | 1986-87 Amount | Length of award in months |
|---|---|---|---|
| 1. Pell Grant: | ☐ | $______.00 | ☐☐ |
| 2. SEOG: | ☐ | $______.00 | ☐☐ |
| 3. NDSL: | ☐ | $______.00 | ☐☐ |
| 4. CWSP (amount awarded not amount earned to-date): | ☐ | $______.00 | ☐☐ |

| | | Not Specified | 1986-87 Amount | Length of award in months |
|---|---|---|---|---|
| 5. | GSL/FISL loan to student (without deduction): | ☐ | $______.00 | ☐☐ |
| 6. | PLUS loan to parents (without deduction): | ☐ | $______.00 | ☐☐ |
| 7. | PLUS/ALAS loan to students (without deduction): | ☐ | $______.00 | ☐☐ |
| 8. | Health Profession Grant: | ☐ | $______.00 | ☐☐ |
| 9. | Health Profession Loan: | ☐ | $______.00 | ☐☐ |
| | a. HEAL | ☐ | $______.00 | ☐☐ |
| | b. HPSL | ☐ | $______.00 | ☐☐ |
| | c. Other health professional loan | ☐ | $______.00 | ☐☐ |
| 10. | Nursing Grant: | ☐ | $______.00 | ☐☐ |
| 11. | Nursing Loan: | ☐ | $______.00 | ☐☐ |
| 12. | Veterans Administration: | | | |
| | a. Grant | ☐ | $______.00 | ☐☐ |
| | b. Fellowship | ☐ | $______.00 | ☐☐ |
| | c. Assistantship | ☐ | $______.00 | ☐☐ |
| | d. Loan | ☐ | $______.00 | ☐☐ |
| 13. | Department of Defense: | | | |
| | a. Grant | ☐ | $______.00 | ☐☐ |
| | b. Fellowship | ☐ | $______.00 | ☐☐ |
| | c. Assistantship | ☐ | $______.00 | ☐☐ |
| | d. ROTC stipend | ☐ | $______.00 | ☐☐ |
| | e. Loan | ☐ | $______.00 | ☐☐ |
| 14. | National Science Foundation: | | | |
| | a. Grant | ☐ | $______.00 | ☐☐ |
| | b. Fellowship | ☐ | $______.00 | ☐☐ |
| | c. Assistantship | ☐ | $______.00 | ☐☐ |
| | d. Loan | ☐ | $______.00 | |
| 15. | Department of Agriculture: | | | |
| | a. Grant | ☐ | $______.00 | ☐☐ |
| | b. Fellowship | ☐ | $______.00 | ☐☐ |
| | c. Assistantship | ☐ | $______.00 | ☐☐ |
| | d. Loan | ☐ | $______.00 | ☐☐ |
| 16. | All other Federal aid: | | | |
| | a. Grant | ☐ | $______.00 | ☐☐ |
| | b. Fellowship | ☐ | $______.00 | ☐☐ |
| | c. Assistantship | ☐ | $______.00 | ☐☐ |
| | d. Loan | ☐ | $______.00 | ☐☐ |

|  |  |  | Not Specified | 1986-87 Amount | Length of award in months |
|---|---|---|---|---|---|
| B. |  | State Aid |  |  |  |
|  | 1. | Merit-based grant/scholarship/ fellowship: | ☐ | $____.00 | ☐☐ |
| NY ONLY |  | a. Regents College Scholarship | ☐ | $____.00 | ☐☐ |
|  |  | b. Other | ☐ | $____.00 | ☐☐ |
|  | 2. | SSIG (Include both state and Federal components) | ☐ | $____.00 | ☐☐ |
|  | 3. | Other need-based grant aid | ☐ | $____.00 | ☐☐ |
| NY ONLY |  | a. TAP | ☐ | $____.00 | ☐☐ |
|  |  | b. STAP | ☐ | $____.00 | ☐☐ |
|  |  | c. APTS | ☐ | $____.00 | ☐☐ |
|  |  | d. Opportunity Grants (HEOP, EOP, SEEK, CD) | ☐ | $____.00 | ☐☐ |
|  |  | e. Other | ☐ | $____.00 | ☐☐ |
|  | 4. | State entitlement: | ☐ | $____.00 | ☐☐ |
|  | 5. | Work study awarded (not CWSP): | ☐ | $____.00 | ☐☐ |
|  | 6. | Need-based loan (not including GSL/FISL): | ☐ | $____.00 | ☐☐ |
|  | 7. | Other state aid: |  |  |  |
|  |  | a. Grant | ☐ | $____.00 | ☐☐ |
|  |  | b. Loan | ☐ | $____.00 | ☐☐ |
| C. |  | Institutional Aid |  |  |  |
|  | 1. | Non-need based, non-Federal scholarship: | ☐ | $____.00 | ☐☐ |
|  | 2. | Need-based grant: | ☐ | $____.00 | ☐☐ |
|  | 3. | Institutionally sponsored college work study awarded (estimated academic year earnings): | ☐ | $____.00 | ☐☐ |
|  | 4. | Tuition waivers or discounts | ☐ | $____.00 | ☐☐ |
|  | 5. | Fellowship awards: | ☐ | $____.00 | ☐☐ |
|  | 6. | Assistantship awards: | ☐ | $____.00 | ☐☐ |
|  | 7. | Need-based long-term loan (deferred until after student leaves school, non-GSL/FISL): | ☐ | $____.00 | ☐☐ |
|  | 8. | Other long-term loan (non-GSL/FISL): | ☐ | $____.00 | ☐☐ |
|  | 9. | Employee benefit waivers or discounts: | ☐ | $____.00 | ☐☐ |
|  | 10. | Employee benefit dependent waivers or discounts: | ☐ | $____.00 | ☐☐ |
|  | 11. | Other institutional: |  |  |  |
|  |  | a. Grant | ☐ | $____.00 | ☐☐ |
|  |  | b. Loan | ☐ | $____.00 | ☐☐ |

D. All Other Aid (Outside/private grants/scholarships):

| | Not Specified | 1986-87 Amount | Length of award in months |
|---|---|---|---|
| 1. Corporations | ☐ | $________.00 | ☐☐ |
| 2. Employer provided tuition benefits | ☐ | $________.00 | ☐☐ |
| 3. Unions | ☐ | $________.00 | ☐☐ |
| 4. Foundations | ☐ | $________.00 | ☐☐ |
| 5. Fraternal organizations | ☐ | $________.00 | ☐☐ |
| 6. Community organizations | ☐ | $________.00 | ☐☐ |
| 7. Other, specify ______________ | ☐ | $________.00 | ☐☐ |
| 8. Source unknown | ☐ | $________.00 | ☐☐ |

36. Other Financial Contributions

| | Not Specified | 1986-87 Amount |
|---|---|---|
| 1. Outside/private loans: | ☐ | $________.00 |
| 2. Off-campus earnings: | ☐ | $________.00 |
| 3. Other on-campus earnings (not CWSP): | ☐ | $________.00 |

# INSTITUTION CHECKLIST

**Date:** ______________________ **Coordinator:** ______________________

**Checklist Label:** **Appointment Time:** ______________________ am/pm

**Location of registration records:**

Location of Registrar Office: ______________________

Contact Person: ______________________

Telephone #: (     ) ______________________

1. **What is the typical calendar system your school operates on?**

A. Semester .............................. 1
B. Quarter .............................. 2
C. Trimester .............................. 3
D. 4-1-4 .............................. 4
E. Program Specific .............................. 5
F. Other, specify .............................. 6
______________________

2. **When does your school year officially begin and end?**

______________________ to ______________________
month/day month/day

3. **What scale is your school's "grade point average" based on?:**

A. 4-point .............................. 1
B. 3-point .............................. 2
C. No GPA .............................. 3
D. Pass/Fail .............................. 4
E. Other, specify .............................. 5
______________________

4. **How do you charge full-time undergraduate students?**

A. Not applicable .................... 1 Skip to Q5

B. Flat fee for tuition .............. 2

1. Amount: $________.00 per:

| | |
|---|---|
| Semester ........................................ | 1 |
| Quarter ........................................ | 2 |
| Trimester ........................................ | 3 |
| 4-1-4 ........................................ | 4 |
| Other, specify ____________________ ....... | 5 |

2. Range of credit hours covered by this flat fee:

_______ Min to _______ Max

C. Per hour ............................... 3

1. Amount: $________.00 per:

| | |
|---|---|
| Semester credit hour ................................ | 1 |
| Quarter credit hour ................................ | 2 |
| Trimester credit hour ................................ | 3 |
| 4-1-4 credit hour ................................ | 4 |
| Clock/contact hour ................................ | 5 |
| Other, specify ____________________ ....... | 6 |

5. **How do you charge full-time graduate students?**

A. Not applicable .................... 1 Skip to Q6

B. Flat fee for tuition .............. 2

1. Amount: $________.00 per:

| | |
|---|---|
| Semester ........................................ | 1 |
| Quarter ........................................ | 2 |
| Trimester ........................................ | 3 |
| 4-1-4 ........................................ | 4 |
| Other, specify ____________________ ....... | 5 |

2. Range of credit hours covered by this flat fee:

_______ Min to _______ Max

C. Per hour ............................... 3

1. Amount: $________.00 per:

| | |
|---|---|
| Semester credit hour ................................ | 1 |
| Quarter credit hour ................................ | 2 |
| Trimester credit hour ................................ | 3 |
| 4-1-4 credit hour ................................ | 4 |
| Clock/contact hour ................................ | 5 |
| Other, specify ____________________ ....... | 6 |

6. **What are the required tuition and fees for a full-time student per academic year in first professional programs?**

| | | | | |
|---|---|---|---|---|
| A. | Not applicable | | 01 | Skip to Q7 |
| B. | Chiropractic (D.C.) | $______.00 | 02 | |
| C. | Dentistry (D.D.S. or DMD) | $______.00 | 03 | |
| D. | Medicine (M.D.) | $______.00 | 04 | |
| E. | Optometry (O.D.) | $______.00 | 05 | |
| F. | Osteopathic Medicine (D.O.) | $______.00 | 06 | |
| G. | Pharmacy (D.Phar.) | $______.00 | 07 | |
| H. | Podiatry (Pod.D., D.P., or D.P.M.) | $______.00 | 08 | |
| I. | Veterinary Medicine (D.V.M.) | $______.00 | 09 | |
| J. | Law (LL.B. or J.D.) | $______.00 | 10 | |
| K. | Theology (M.Div. or M.B.L.) | $______.00 | 11 | |
| L. | Other, specify ______________ | $______.00 | 12 | |

7. **What is (are) your school's typical credit or clock/contact hour requirement(s) for award completion?** (Obtain information from the school's catalogue; if not available provide details below.)

**LEVEL** — **CREDITS**

A. **Undergraduates** ________

1 Certificate/Award ________

2 Diploma (not high school) ________

3 Associate's Degree ________

4 Bachelor's Degree ________

**CREDITS**

B. **First Professional** ________

01 Chiropractic ________

02 Dentistry ________

03 Medicine ________

04 Optometry ________

05 Osteopathic Medicine ________

06 Pharmacy ________

07 Podiatry ________

08 Veterinary Medicine ________

09 Law ________

10 Theology ________

11 Other, specify ________

________________________

C. **Graduates**

1 Doctoral ________

2 Masters ________

3 Other, specify ________

________________________

**CLOCK/CONTACT HOURS**

D. **Other Programs (e.g., Occupational)**

1 ________________________ ________

2 ________________________ ________

3 ________________________ ________

4 ________________________ ________

5 ________________________ ________

6 ________________________ ________

7 ________________________ ________

8 ________________________ ________

**8. Does the institution/campus operate more than one student financial aid office?**

☐ Yes -----------> Obtain a copy of a directory which lists these offices (i.e., contact person, telephone numbers, and location) OR complete Item 9.

☐ No (Go to Item 10)

**9. List below all offices that maintain student aid records.**

**A. In-School Students:**

| Type of Student | Contact Person | Telephone # | Location |
|---|---|---|---|
| 1. Undergraduates | | | |
| a. Seniors | | | |
| b. Juniors | | | |
| c. Sophomores | | | |
| d. Freshmen | | | |
| e. Other, specify | | | |
| ______ | | | |
| 2. First Professional | | | |
| a. Chiropractic | | | |
| b. Dentistry | | | |
| c. Medicine | | | |
| d. Optometry | | | |
| e. Osteopathic Medicine | | | |
| f. Pharmacy | | | |
| g. Podiatry | | | |
| h. Veterinary Medicine | | | |
| i. Law | | | |
| j. Theology | | | |
| k. Other, specify | | | |
| ______ | | | |
| 3. Graduates (Use additional note sheets if needed) | | | |
| a. Doctoral | | | |
| b. Masters | | | |
| c. Other,specify | | | |
| ______ | | | |
| 4. Other Programs (e.g., Occupational) | | | |
| a. ______ | | | |
| b. ______ | | | |
| c. ______ | | | |

**B. Records of Individuals Who Have Completed or Withdrawn From the School:**

| Contact Person | Telephone # | Location |
|---|---|---|
| | | |
| | | |
| | | |

**C. Location of High School Transcripts:**

| Contact Person | Telephone # | Location |
|---|---|---|
| | | |
| | | |
| | | |

**10. Which financial aid need analysis service does your aid office use?**

A. College Scholarship Service (CSS-FAF) .......... 1
B. American College Testing Program (ACT-FFS) .......... 2
C. Pennsylvania Higher Education Assistance Agency (PHEAA) .......... 3
D. Student Aid Application for California (SAAC) .......... 4
E. Graduate and Professional Financial Aid Service(GAPFAS) .......... 5
F. Other, specify ______________________ .......... 6

Field Staff: Prior to filling in the following items ask the FAA for copies of the aid offices' budget statement and adjustment protocols. These materials should be attached, if not available in the following format, fill in item 11.

**11. For those schools participating in the Pell grant program, identify the standard Pell budgets listed on the campus'/offices' Institutional Payment Summary (IPS).**

| Budget | Tuition & Fees | Room & Board | Miscellaneous Expenses | Total |
|---|---|---|---|---|
| Pell Type 1 | | | | |
| Pell Type 2 | | | | |
| Pell Type 3 | | | | |
| Pell Type 4 | | | | |
| Pell Type 5 | | | | |
| Pell Type 6 | | | | |
| Pell Type 7 | | | | |
| Pell Type 8 | | | | |
| Pell Type 9 | | | | |
| Pell Type 10 | | | | |

**12. What other student expense budgets are used by your institutional financial aid offices? (Use additional note sheets if needed.)**

|  | Name of Budget | Tuition & Fees | Room & Board | All other Expenses | Total | Number of months covered |
|---|---|---|---|---|---|---|
| 1. | ________ | ______ | ______ | ______ | ______ | ☐☐ |
| 2. | ________ | ______ | ______ | ______ | ______ | ☐☐ |
| 3. | ________ | ______ | ______ | ______ | ______ | ☐☐ |
| 4. | ________ | ______ | ______ | ______ | ______ | ☐☐ |
| 5. | ________ | ______ | ______ | ______ | ______ | ☐☐ |

13. **Field Staff: The following items are designed to assist you in obtaining information about the campus' aid records and the use of student budgets for determining educational expenses. Understanding these practices and related adjustments will help you in abstracting related information from student files for the Record Forms. Ask the coordinator about the best source for the items listed below.**

| **Item (Record Abstract Form Q30)** | **Best Source** |
|---|---|
| **A. DEPENDENT Student Family Information** | |
| 1. Age of older parent (SAR-Q21) | |
| 2. Total number in household in 1986-87 (SAR-Q22) | |
| 3. Total number in household in college at least 1/2 time in 1986-87 (SAR-Q23 & Q24) | |
| 4. Total number of exemptions claimed by parents (SAR-Q26) | |
| 5. Parents' IRS adjusted gross income (SAR-Q27) | |
| 6. Parents' Federal income tax paid (SAR-Q28) | |
| 7. Parents' deduction for married couple when both work (SAR-Q29) | |
| 8. Payment to parents' IRA/KEOGH (SAR-Q30) | |
| 9. Parents' itemized deductions (SAR-Q31) | |
| 10. Income earned from work -- father (SAR-Q32) | |
| 11. Income earned from work -- mother (SAR-Q33) | |
| 12. Parents' total untaxed income and benefits (SAR-Q34 & Q35 & Q36) | |
| 13. Parents' medical and dental expenses not paid by insurance (SAR-Q37) | |
| 14. Elementary and secondary school tuition and fees for dependent children (SAR-Q38) | |
| 15. Parents' expected 1986 total taxable and nontaxable income (SAR-Q39) | |
| 16. Student's (and spouse's) adjusted gross income (SAR-Q40) | |
| 17. Student's (and spouse's) Federal income tax paid (SAR-Q41) | |
| 18. Student's (and spouse's) untaxed income and benefits (SAR-Q42) | |

**Best Source**

19. Student's (and spouse's) savings and net assets (SAR-Q43) ____________________
20. Parents' cash, savings, checking accounts (SAR-Q44) ____________________
21. Parents' assets (current worth less amount owed) ____________________
22. Student's expected 1986-87 Veteran educational benefits (SAR-Q55 x Q56) + (SAR-Q57 x Q58) ____________________
23. Student's (and spouse's) other expected 1986-87 untaxed income and benefits (SAR-Q59) ____________________
24. Student's (and spouse's) expected summer income (SAR-Q51 AND Q53) ____________________
25. Student's (and spouse's) expected school year income (SAR-Q52 & Q54) ____________________

**Item (Record Abstract Form Q31)**

**B. INDEPENDENT Student's (and Spouse's) Family Information**

1. Total size of student's (and spouse's) household during 1986-87 (SAR-Q22) ____________________
2. Of the total number in student's (and spouse's) household, how many will be in college at least 1/2 time during 1986-87 (SAR-Q23 & Q24) ____________________
3. Total number of exemptions (SAR-Q26) ____________________
4. Student's (and spouse's) IRS adjusted gross income (SAR-Q27) ____________________
5. Student's (and spouse's) Federal income tax paid (SAR-Q28) ____________________
6. Student's (and spouse's) deduction for married couple (SAR-Q29) ____________________
7. Student's (and spouse's) itemized deductions (SAR-Q31) ____________________
8. Earned income from work--student (SAR-Q32) ____________________
9. Earned income from work--spouse (SAR-Q33) ____________________
10. Student's (and spouse's) total untaxed income and benefits (SAR-Q34 & Q35 & Q36) ____________________

**Best Source**

11. **Student's (and spouse's) medical and dental expenses not paid by insurance (SAR-Q37)** ________

12. **Elementary and secondary school tuition for dependent children (SAR-Q38)** ________

13. **Student's (and spouse's) cash, savings, checking account (SAR-Q44)** ________

14. **Student's (and spouse's) assets (current worth less amount owed)** ________

15. **Student's expected 1986-87 Veterans educational benefits (SAR-Q55 x Q56) + (SAR-Q57 x Q58)** ________

16. **Student's (and spouse's) other expected 1986-87 untaxed income and benefits (SAR-Q59)** ________

17. **Student's (and spouse's) expected summer income (SAR-Q51 & Q53)** ________

18. **Student's (and spouse's) expected school year income (SAR-Q52 & Q54)** ________

**C. Expected family contribution (Record abstract Form Q32)** ________

**D. GSL family contribution schedule (Record Abstract Form Q33)** ________

**E. Institution's adjusted expected family contribution (Record Abstract Form Q34)** ________

**F. Financial Aid:**

Federal Aid

1. Pell Grant: ________
2. SEOG: ________
3. NDSL: ________
4. CWSP ________
5. GSL/FISL loan to student (without deduction): ________
6. PLUS loan to parents (without deduction): ________
7. PLUS/ALAS loan to students (without deduction): ________
8. Health Profession Grant: ________

Best Source

9. Health Profession Loan: ____________________

   a. HEAL ____________________

   b. HPSL ____________________

   c. Other health professional loan ____________________

10. Nursing Grant: ____________________

11. Nursing Loan: ____________________

12. Veterans Administration:

    a. Grant ____________________

    b. Fellowship ____________________

    c. Assistantship ____________________

    d. Loan ____________________

13. Department of Defense:

    a. Grant ____________________

    b. Fellowship ____________________

    c. Assistantship ____________________

    d. ROTC stipend ____________________

    e. Loan ____________________

14. National Science Foundation:

    a. Grant ____________________

    b. Fellowship ____________________

    c. Assistantship ____________________

    d. Loan ____________________

15. Department of Agriculture:

    a. Grant ____________________

    b. Fellowship ____________________

    c. Assistantship ____________________

    d. Loan ____________________

**Best Source**

16. All other Federal aid:
    a. Grant ____________
    b. Fellowship ____________
    c. Assistantship ____________
    d. Loan ____________

**G. State Aid**

1. Merit-based grant/scholarship/fellowship: ____________

NY ONLY [redacted]

2. SSIG (Include both state and Federal components) ____________
3. Other need-based grant aid ____________

NY ONLY [redacted]

4. State entitlement: ____________
5. Work study awarded (not CWSP): ____________
6. Need-based loan (not including GSL/FISL): ____________
7. Other state aid:
    a. Grant ____________
    b. Loan ____________

**H. Institutional Aid**

1. Non-need based, non-Federal scholarship: ____________
2. Need-based grant: ____________
3. Institutionally sponsored college work study awarded (estimated academic year earnings): ____________

| | Best Source |
|---|---|
| 4. Tuition waivers or discounts | ________________ |
| 5. Fellowship awards: | ________________ |
| 6. Assistantship awards: | ________________ |
| 7. Need-based long-term loan (deferred until after student leaves school, non-GSL/FISL): | ________________ |
| 8. Other long-term loan (non-GSL/FISL): | ________________ |
| 9. Employee benefit waivers or discounts: | ________________ |
| 10. Employee benefit dependent waivers or discounts: | ________________ |
| 11. Other institutional: | ________________ |
| a. Grant | ________________ |
| b. Loan | ________________ |
| **I. All Other Aid (Outside/private grants/scholarships):** | |
| 1. Corporations | ________________ |
| 2. Employer provided tuition benefits | ________________ |
| 3. Unions | ________________ |
| 4. Foundations | ________________ |
| 5. Fraternal organizations | ________________ |
| 6. Community organizations | ________________ |
| 7. Other, specify ____________________ | ________________ |
| **J. Other Financial Contributions (Record Abstract Form Q36)** | |
| 1. Outside/private loans: | ________________ |
| 2. Off-campus earnings: | ________________ |
| 3. Other on-campus earnings (not CWSP): | ________________ |

**Appointment Schedule:**

What is the earliest date we can contact you to update financial aid awards for the award year ending June 30, 1987?

Approximate date: ________________________

## School Summary Report

**School Label** **Data Collector:** ____________________

**Dates of Visit:** __________ to __________

**Name & Title of Contact Person:** ______________________________

**Telephone Number of Contact Person:** ______________________________

**Sample selected from:**

| | |
|---|---|
| Print-out | 1 |
| Other list | 2 |
| File folders | 3 |
| Other (specify) | 4 |

______________________________

**Data abstracted from:**
**(CIRCLE ALL THAT APPLY)**

| | |
|---|---|
| Financial Aid Office Records | 1 |
| Registrar Records | 2 |
| Admissions Records | 3 |
| Other (specify) | 4 |

______________________________

**Frequently missing data:**

______________________________

______________________________

______________________________

**Additional documentation included:**
**(CIRCLE ALL THAT APPLY)**

| | |
|---|---|
| School budget computation data...... | 1 |
| School catalogue................................ | 2 |
| Other (specify) ................................ | 3 |
| ________________________________ | 4 |
| ________________________________ | 5 |
| ________________________________ | 6 |

**Describe any procedural changes or scheduling changes:**

**Change:** ______________________________ **Authorized by:** ______________________

________________________________________

________________________________________

________________________________________

**Change:** ______________________________ **Authorized by:** ______________________

________________________________________

________________________________________

________________________________________

OMB No. 1850-0585
Expiration Date: 12/87

U.S. Department of Education
Office of Educational Research and Improvement

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Center for Education Statistics

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# National Postsecondary Student Aid Study

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## *Student Questionnaire*

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**All information on this form will be kept strictly confidential and will not be disclosed or released to your school or any other group or individual.**

**Conducted with the assistance of WESTAT, Inc. 1650 Research Blvd. Rockville, MD 20850**
**Call toll-free (800) 345-0723. In Maryland, call (301) 963-5456.**

**UNITED STATES DEPARTMENT OF EDUCATION**

OFFICE OF THE ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

CENTER FOR EDUCATION STATISTICS

March 1987

Dear Student:

As a student who is currently enrolled in or has recently attended a postsecondary vocational school, college, or university, you are aware of the costs involved in going to school and the need to meet these costs. The U.S. Department of Education is concerned about these costs and how students, like yourself, and their families finance their education after high school. We realize that a great many students rely on some type of financial aid, but there is little information to answer such questions as: how much does it actually cost a student to attend a postsecondary school; how much must students borrow to stay in school; and how great is the need for additional financial assistance. To answer these and other questions, the U.S. Department of Education is conducting the National Postsecondary Student Aid Study.

You have been selected as a participant in this very important national study through a scientifically designed sample selection process. Your participation as well as the participation of all other selected students (and former students) is absolutely essential to the success of the study. Your input will help us provide better advice to Congress on the problems and needs of students and families who are trying to pay for postsecondary education. The results of this study will have a significant impact on future Federal policy regarding student financial aid, so be sure the information you provide is complete and accurate.

We want to assure you that under Federal law all information provided on the enclosed questionnaire will be kept strictly confidential and can not be disclosed or released to your school or any other group or individual. Nor will your responses in any way affect your participation in, or eligibility for, financial aid.

Please return your completed questionnaire in the enclosed pre-addressed postage-paid envelope as quickly as possible. If you need any assistance in completing the questionnaire, or if you have any questions about the study, please call our toll-free number (800) 345-0723. In Maryland, call (301) 963-5456.

We have enclosed a brief pamphlet about the study and a brochure that describes U.S. Department of Education Student Aid Programs. We hope you find these interesting and useful. We have also enclosed a pocket calculator to assist you in answering some of the questions and to thank you in advance for your cooperation and participation.

Sincerely,

EJ Elliott

Emerson J. Elliott
Director

WASHINGTON, D.C. 20208

## GENERAL INSTRUCTIONS

1. There are three types of questions asked in this questionnaire. Please follow the instructions given below for each type.

    a. The first type of question requires that you write an answer in the space provided.

    **Example**: What was your major field of study for your degree?

    Major field of study Sociology

    Please estimate your total cost for books and supplies.

    $ 200 .00

    b. The second type of question lists the possible answers and asks you to circle only one answer code.

    **Example**: Did you go to a movie last week?

    (CIRCLE ONE)

    Yes .................................................... [✓ 1]

    No .................................................... 2

    c. The third type of question lists the possible answers and asks you to circle all answer codes that apply.

    **Example**: Last week, did you do any of the following?

    (CIRCLE ALL THAT APPLY)

    See a play .......................................... 1

    Go to a movie .................................... [✓ 1]

    Attend a sporting event ..................... [✓ 1]

**PLEASE NOTE**

2. The number of questions to be answered varies depending on your circumstances.

3. Please answer all questions in the order they appear on the questionnaire unless instructed otherwise. For some questions, the answer you provide will determine if you should answer the next question or skip to another question. The instructions to skip to another question are given in parentheses next to the answer. If an answer you provide has no skip instruction next to it, continue with the next question.

    **Example**: Were you enrolled in a college or university during the period of January-February 1986?

    (CIRCLE ONE)

    Yes: Full-time ............................. [✓ 1]

    Yes: Part-time ............................. 2

    No: ............................................. 3 —> (Please skip to Q10)

    In the above example, if you circled code 1 or 2 (Yes: Full-time or Yes: Part-time), you would go on to the next question. If you circled code 3 (No), you would skip to Question 10.

4. For each question pay special attention to the time period for which we are requesting information.

PLEASE READ EACH QUESTION CAREFULLY, ENTER TODAY'S DATE, AND START WITH QUESTION 1.

Today's date is |___|___| Month |___|___| Day 1987

## YOUR ACTIVITIES LAST FALL

This section asks questions about your activities **last fall, September through December 1986**.

1. Last fall when you were taking courses were you also:

|  |  |  |
|---|---|---|
|  |  | **(CIRCLE ALL THAT APPLY)** |
| a. | Working for pay | 1 |
| b. | Serving in an apprenticeship program or government training program | 1 |
| c. | Serving on active duty in the Armed Forces | 1 |
| d. | Keeping house (without another job) | 1 |
| e. | Holding a job, but on temporary layoff from work or waiting to report to work | 1 |
| f. | Looking for work | 1 |
| g. | Other (Specify ______________________) | 1 |

2. For the courses you were taking last fall, please answer the following questions.

a. How many courses were you taking?

______________
Number of Courses

b. How many credit hours?
(If none, enter 0)

______________
Number of Credit Hours

c. If you do not know the number of credit hours, or if you did not receive credit for your fall courses, how many hours of instruction were you scheduled to attend each week?

______________
Number of Hours per Week

3. What was your level in school last fall?

| | (CIRCLE ONE) |
|---|---|
| Freshman or first year | 1 |
| Sophomore or second year | 2 |
| Junior or third year | 3 |
| Senior or fourth year | 4 |
| Fifth year or more, undergraduate | 5 |
| First year graduate or professional (after a bachelor's degree) | 6 |
| Continuing graduate or professional | 7 |

4. Toward which degree or other certificate/award were your fall courses leading?

| | (CIRCLE ONE) |
|---|---|
| Certificate/Award | 01 |
| Diploma (not high school) | 02 |
| Associate's degree | 03 |
| Bachelor's degree | 04 |
| Postbaccalaureate certificate | 05 |
| Master's degree | 06 |
| Doctoral degree | 07 |
| First-professional degree | 08 |
| Undecided | 09 |
| Courses were not leading toward a degree, certificate or other formal award | 10 |
| Other (Specify ________________________) | 11 |

5. When do you expect to obtain this degree or other certificate/award?

|__|__| Month 19|__|__| Year

QUESTIONS 6 THROUGH 11 REFER TO THE SCHOOL YOU WERE ATTENDING LAST FALL

6. Did you pay your tuition and fees by term or did you pay for your entire course of study at one time?

| | (CIRCLE ONE) |
|---|---|
| By term | 1 |
| By course of study | 2 |

7. How much did you pay to the school you were attending?

For tuition $____________.00

For fees $____________.00

8. How long, **in months**, was the scheduled course of study from the beginning of your studies to your anticipated degree or certificate completion?

____________

Number of Months

9. In the fall, how much did you spend for books and supplies?

$____________.00

10. Where did you reside while enrolled in school last fall?

| | (CIRCLE ONE) |
|---|---|
| With parents, guardians, or other relative | 1 |
| In my own residence, not with parents | 2 |
| In school-owned or -controlled housing | 3 |

11. How much did you pay **per term** to the school for your living expenses? (If none, enter $0.)

a. For school-owned or -controlled housing $____________.00

b. For school-provided meals $____________.00

12. During the fall, what were your average **monthly** living expenses **other than** what you paid to the school or spent on books and supplies? Please indicate in column A your average monthly expenses (in dollars) for each item. In column B, please indicate how much of the amount in column A is directly related to your attendance in school. (If none, enter $0.) All of your monthly expenses should be accounted for in the categories below.

| | A<br>Average monthly expenses | B<br>Average monthly expenses directly related to your education |
|---|---|---|
| a. Rent or mortgage, utilities | $__________.00 | $__________.00 |
| b. Food (including meals at restaurants) | $__________.00 | $__________.00 |
| c. Commuting to school | $__________.00 | $__________.00 |
| d. Other transportation costs (auto loan payments, auto service, etc.) | $__________.00 | $__________.00 |
| e. Personal expenses (clothing, recreation, vacation trips, cleaning, etc.) | $__________.00 | $__________.00 |
| f. Child care (day care, baby sitting, etc.) | $__________.00 | $__________.00 |
| g. Education loans | $__________.00 | $__________.00 |
| h. All other monthly payments (other loans, phone, child support, insurance, medical, dental, etc.) | $__________.00 | $__________.00 |

13. Why did you decide to enter the school you were attending in the fall?

| | (CIRCLE ONE NUMBER FOR EACH ITEM) Very important | Somewhat important | Not important |
|---|---|---|---|
| a. The school had a good reputation | 1 | 2 | 3 |
| b. I obtained the financial aid I needed at the school | 1 | 2 | 3 |
| c. The school offered the course of study I wanted | 1 | 2 | 3 |
| d. My parents/guardians wanted me to attend the school | 1 | 2 | 3 |
| e. I had a better chance to get a job at the school | 1 | 2 | 3 |
| f. My tuition and other direct school expenses were less at the school than at other schools | 1 | 2 | 3 |
| g. My other living costs at the school were less than at other schools | 1 | 2 | 3 |
| h. My friends attended the school | 1 | 2 | 3 |
| i. The school was close to my home | 1 | 2 | 3 |
| j. I could work while attending the school | 1 | 2 | 3 |
| k. I could live at home | 1 | 2 | 3 |
| l. The school was far away from my home | 1 | 2 | 3 |
| m. The school had a good reputation for placing its graduates | 1 | 2 | 3 |

14. Were you a first-time student (first-time freshman or a first-time graduate/professional student) at this institution in the fall of 1986?

Yes .............................................. 1
No .............................................. 2 —> (Please skip to Q17)

15. When you applied to the school you were attending last fall, to how many **other** schools did you apply?

______________________
Number of Schools

16. In the table below, for each of the schools to which you applied, please indicate your acceptance and financial aid status. Include the school you were attending last fall if it was among your first, second, or third choices.

Schools applied to (please write in complete name):

| | **1st choice** | **2nd choice** | **3rd choice** |
|---|---|---|---|
| School Name ............ | ______________<br>______________ | ______________<br>______________ | ______________<br>______________ |
| City ........................... | ______________ | ______________ | ______________ |
| State .......................... | ______________ | ______________ | ______________ |
| Were you accepted? | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 |
| Did you apply for financial aid? | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 |
| Were you offered financial aid? | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 | Yes ...................... 1<br>No ....................... 2 |
| How much total aid (grants, loans, work-study, etc.) were you offered? | $____________.00 | $____________.00 | $____________.00 |

17. If you were working at a full-time or part-time job, including a teaching or research assistantship during the fall of 1986, answer the following questions. If not, check here |____| and skip to Question 25.

18. In the fall, were you a teaching or research assistant in a college or university?

Yes .............................................. 1
No ............................................... 2 —> (Please skip to Q21)

19. As a teaching or research assistant, how much did you earn before withholdings?

(CIRCLE ONE)

$____________.00 { per month .................... 1
per term ........................ 2

20. Did you have any jobs in addition to your teaching or research assistantship?

| | |
|---|---|
| Yes | 1 |
| No | 2 |

**Please skip to Question 25.**

21. For the job you had last fall: When did you start working at this job? (If you had more than one job, please answer this question and Questions 22 through 24 for the job in which you earned most of your income.)

|___|___| 19 |___|___|
Month Year

22. How many hours per week did you work at this job last fall?

____________________
Number of Hours per Week

23. What were your earnings before withholdings at this job last fall?

$__________.___ per

| | (CIRCLE ONE) |
|---|---|
| hour | 1 |
| week | 2 |
| month | 3 |
| term | 4 |

24. Was your employer:

| | (CIRCLE ONE) |
|---|---|
| Your college or university | 1 |
| Another postsecondary school | 2 |
| Other (Specify ________________________)<br>(Retail store, manufacturing plant, Federal or State government, R&D firm, restaurant, etc.) | 3 |

25. Did you work at any time from June through August 1986?

| | |
|---|---|
| Yes | 1 |
| No | 2 |

26. If you did work from June through August, 1986, what were your total earnings before withholdings? (If none, enter $0.)

$__________.00

27. Since last fall have you completed your degree/course of study or satisfied your current education needs?

| | |
|---|---|
| Yes | 1 |
| No | 2 |

## CURRENT ACTIVITIES

28. Are you currently enrolled in school to continue your studies or to pursue another degree or course of study?

(CIRCLE ONE)

Yes, enrolled to continue studies ........ 1

Yes, enrolled to pursue another degree or course of study ........ 2

No, not enrolled ........ 3 —> (Please skip to Q43)

29. Are you currently enrolled in the same school as you were attending last fall?

Yes ........ 1 —> (Please skip to Q38)

No ........ 2

30. What is the name and location of the school you are currently attending?

School Name ____________________

Address ____________________

City, State, Zip ____________________

31. In your current school, do you pay your tuition and fees by term or do you pay for your entire course of study at one time?

(CIRCLE ONE)

By term ........ 1

By course of study ........ 2

32. How long, in months, is your current scheduled course of study from the beginning of your studies to your anticipated degree or certificate completion?

____________________
Number of Months

33. How many courses are you taking?

____________
Number of Courses

34. How many credit hours are you taking? (If none, enter 0.)

____________
Number of Credit Hours

35. If you do not know the number of credit hours, or if you do not receive credit for your current courses, how many hours of instruction are you scheduled to attend each week?

____________
Number of Hours per Week

36. What is your current level in school?

| | (CIRCLE ONE) |
|---|---|
| Freshman or first year | 1 |
| Sophomore or second year | 2 |
| Junior or third year | 3 |
| Senior or fourth year | 4 |
| Fifth year or more, undergraduate | 5 |
| First year graduate or professional (after a bachelor's degree) | 6 |
| Continuing graduate or professional | 7 |

37. What is the name of your program, field of study, or contemplated major?

________________________________

38. Question 38a refers to the money you paid to attend school during the current term. If you paid for the entire course of study at one time and reported this in Question 7, please check here |____| and skip to Question 39.

38a. How much did you pay this term for:

a. Tuition $__________.00

b. Fees $__________.00

39. How much did you spend for books and supplies for the current term?

$__________.00

40. Where are you currently residing?

| | (CIRCLE ONE) |
|---|---|
| With parents, guardians, or other relative ........................................ | 1 |
| In my own residence, not with parents ........................................ | 2 |
| In school-owned or -controlled housing ........................................ | 3 |

41. How much did you pay this term to the school for your living expenses? (If none, enter $0.)

a. For school-owned or -controlled housing $__________.00

b. For school-provided meals $__________.00

42. What are your current average **monthly** living expenses **other** than what you paid to the school or spent on books and supplies? Please indicate in column A your average monthly expenses (in dollars) for each item. In column B, please indicate how much of the amount in column A is directly related to your attendance in school. (If none, enter $0.) All of your monthly expenses should be accounted for in the categories below.

| | A<br>Average monthly expenses | B<br>Average monthly expenses directly related to your education |
|---|---|---|
| a. Rent or mortgage, utilities | $__________.00 | $__________.00 |
| b. Food (including meals at restaurants) | $__________.00 | $__________.00 |
| c. Commuting to school | $__________.00 | $__________.00 |
| d. Other transportation costs (auto loan payments, auto service, etc.) | $__________.00 | $__________.00 |
| e. Personal expenses (clothing, recreation, vacation trips, cleaning, etc.) | $__________.00 | $__________.00 |
| f. Child care (day care, baby sitting, etc.) | $__________.00 | $__________.00 |
| g. Education loans | $__________.00 | $__________.00 |
| h. All other monthly payments (other loans, phone, child support, insurance, medical, dental, etc.) | $__________.00 | $__________.00 |

**Please skip to Question 45.**

43. If you are not currently enrolled in school, what was the name of your program, field of study, or contemplated major when you were enrolled in school in the fall?

____________________________________________

44. Do you plan to return to school as soon as possible?

Yes .................................................. 1
No .................................................. 2

45. What is the **highest** level of education you expect to complete?

(CIRCLE ONE)

A. Vocational, trade or business school after high school

Less than 1 year .................................................. 1
1 but less than 2 years .................................................. 2
2 years or more .................................................. 3

B. College or university

Less than 2 years of college .................................................. 4
2 or more years of college (including 2-year degree) .................................................. 5
Complete college (4- or 5-year degree) .................................................. 6
Master's degree or equivalent .................................................. 7
Ph.D., M.D., or other advanced professional degree .................................................. 8

46. Are you currently working for pay at a full-time or part-time job, including a teaching or research assistantship?

Yes .................................................. 1
No .................................................. 2 —> (Please skip to Q53)

47. Is your current job the same one you had last fall?

Yes .................................................. 1 —> (Please skip to Q53)
No .................................................. 2

48. When did the job you had last fall end? (Leave blank if you are still working at the same job.)

|___|___| 19 |___|___|
Month Year

49. Are you a teaching or research assistant in a college or university?

Yes .................................................. 1
No .................................................. 2 —> (Please skip to Q52)

50. As a teaching or research assistant, how much do you earn before withholdings?

(CIRCLE ONE)

$____________.00 { per month .................... 1
per term ........................ 2

51. Do you have any jobs in addition to your teaching or research assistantship?

Yes .................................................. 1
No .................................................. 2

**Please skip to Question 53.**

52. PLEASE ANSWER QUESTIONS 52a THROUGH 52d FOR YOUR CURRENT JOB. (IF YOU HAVE MORE THAN ONE JOB, PLEASE ANSWER FOR THE JOB IN WHICH YOU EARN MOST OF YOUR INCOME.)

a. Is your employer:

(CIRCLE ONE)

Your college or university .................................................. 1
Another postsecondary school .................................................. 2
Other (Specify ____________________________).... 3
(Retail store, manufacturing plant, Federal or State government, R&D firm, restaurant, etc.)

b. How long have you worked at this job?

________________
Number of Weeks

c. How many hours per week do you usually work?

________________
Number of Hours per Week

d. What are your current earnings before withholdings?

(CIRCLE ONE)

$_________.____ per { hour .................................................. 1
week .................................................. 2
month .................................................. 3
term .................................................. 4

53. What were your total earnings before withholdings from September 1986 through February 1987? Include all employment including teaching and research assistantships but exclude any grants and loans. (If none, enter $0.)

$____________.00

## MEETING YOUR EDUCATION EXPENSES

To meet your total education expenses you probably use money or aid from a variety of sources: your own savings or earnings; contributions or loans from parents or relatives; scholarships; education grants or loans; personal bank loans; etc. The following questions ask about these sources and cover the entire 1986-87 school year (September 1986 - May 1987).

54. How much of your earnings and personal savings was used or will be used to pay for your 1986-87 school year expenses? DO NOT include money from grants, scholarships, loans, or funds from your parents/guardians, or other relatives. (If none, enter $0.)

$____________.00

55. How much did or will your spouse contribute from his or her earnings toward your 1986-87 school year expenses? (If none, enter $0.)

$____________.00

56. How much money did or will your parents/guardians contribute to your 1986-87 school year expenses? (If none, enter $0.)

$____________.00

57. In addition to the financial support entered in Question 56, did your parents/guardians:

| | (CIRCLE ONE NUMBER FOR EACH ITEM) | |
|---|---|---|
| | Yes | No |
| a. Help pay for your automobile (auto loan, auto repairs, insurance, etc.) | 1 | 2 |
| b. Provide your food | 1 | 2 |
| c. Provide your housing | 1 | 2 |
| d. Provide you with the use of charge card(s) | 1 | 2 |
| e. Provide you with clothing or other support | 1 | 2 |

58. How much money do you think this support cost your parents/guardians? (If none, enter $0.)

$____________.00

59. How much money in loans did you receive from your parents/guardians? (If none, enter $0.)

$____________.00

60. Approximately how much money did other relatives or friends (including spouse's parents) contribute toward your 1986-87 school year expenses? (Do not include contributions from spouse or your parents/guardians.) (If none, enter $0.)

$____________.00

61. How much money did or will you receive in loans from other relatives or friends (including your spouse's parents) to help pay for your 1986-87 school year expenses? (If none, enter $0.)

$__________.00

62. For the 1986-87 school year, did you apply for financial aid (grants, scholarships, loans, work-study, etc.)?

Yes ........................................................ 1
No ........................................................ 2 —> (Please skip to Q66)

63. Were you awarded financial aid (not including assistance from your family, other relatives or friends) for the 1986-87 school year?

Yes .................................................. 1
No .................................................. 2 —> (Please skip to Q66)

64. What is the total amount of financial aid you were awarded from all sources (except your family, other relatives, or friends) for the 1986-87 school year? Please include the total amount awarded, not just the amount of financial aid received up to now.

$__________.00

65. For the amount indicated in Question 64 please indicate all sources that helped or will help you pay for your expenses. For each source listed below, indicate the award amount that you have received or will receive for the entire school year or for when you were enrolled. If you do not know the exact source of aid, please enter the total amount for each section, i.e., grants/scholarships, loans and other aid.

| | Awarded | | Award Amount for School Year |
|---|---|---|---|
| | Yes | No | |
| A. Grants/Scholarships | | | |
| 1. Federal ............ | 1 | 2 | $________.00 |
| 2. State ............ | 1 | 2 | $________.00 |
| 3. Institutional ............ | 1 | 2 | $________.00 |
| 4. Other (Specify ________________).... | 1 | 2 | $________.00 |
| | OR | | |
| | Total grants/ scholarships | | $________.00 |
| B. Loans | | | |
| 1. Guaranteed Student Loan (GSL) ............ | 1 | 2 | $________.00 |
| 2. Other Federal ............ | 1 | 2 | $________.00 |
| 3. State ............ | 1 | 2 | $________.00 |
| 4. Institutional ............ | 1 | 2 | $________.00 |
| 5. Other (Specify ________________).... | 1 | 2 | $________.00 |
| | OR | | |
| | Total loans | | $________.00 |
| C. Other types of aid | | | |
| 1. Work-Study ............ | 1 | 2 | $________.00 |
| 2. Fellowships | | | |
| a. Federal ............ | 1 | 2 | $________.00 |
| b. State ............ | 1 | 2 | $________.00 |
| c. Institutional ............ | 1 | 2 | $________.00 |
| d. Other ............ | 1 | 2 | $________.00 |
| 3. Financial assistance from employer ............ | 1 | 2 | $________.00 |
| 4. Financial assistance from military (not income) (ROTC, VA, etc.) ............ | 1 | 2 | $________.00 |
| 5. Other (Specify ________________).... | 1 | 2 | $________.00 |
| | OR | | |
| | Total other aid | | $________.00 |

66. For the 1986-87 school year, were your tuition and/or fees waived in part or in full?

Yes .............................................. 1
No .............................................. 2 —> (Please skip to Q68)

67. If yes, approximately how much was waived? (Please estimate the amount if you don't know.)

$__________.00

68. For your current and any previous postsecondary school years, what is the total amount of all money you borrowed for education purposes? If none, enter $0. (Include loans from parents/guardians, other relatives and friends. Also include all education loans that have been repaid.)

Total $__________.00

69. Of your total education loans, how much do you still owe? (If none, enter $0.)

Still owe $__________.00

70. If your total education expenses this year are higher than your financial resources, including financial aid, what action(s) did you or do you expect to take?

(CIRCLE ONE NUMBER FOR EACH ITEM)

| | Have already taken this action | May take action | Will not take action |
|---|---|---|---|
| a. Apply for a loan or for another loan, if you already have one | 1 | 2 | 3 |
| b. Work or take an additional job | 1 | 2 | 3 |
| c. Ask parents for money | 1 | 2 | 3 |
| d. Ask parents for more money | 1 | 2 | 3 |
| e. Reduce course load | 1 | 2 | 3 |
| f. Cut down on expenses | 1 | 2 | 3 |
| g. Withdraw from school | 1 | 2 | 3 |
| h. Transfer to a less expensive school | 1 | 2 | 3 |
| i. Move back home | 1 | 2 | 3 |
| j. Other (Specify ______________________) | 1 | 2 | 3 |

71. Have you ever **applied for** financial aid (grant, scholarship, fellowship, loan, work study) for your education beyond high school?

Yes .............................................. 1 —> (Please skip to Q73)
No .............................................. 2

72. What were the most important reasons you did not apply?

(CIRCLE ALL THAT APPLY)

| | | |
|---|---|---|
| a. | My family and I could pay for my education | 1 |
| b. | I was not willing to go into debt for schooling | 1 |
| c. | Family income was too high to qualify for financial aid | 1 |
| d. | My grades and/or test scores were not high enough to qualify for financial aid | 1 |
| e. | It was too hard to apply for financial aid | 1 |
| f. | Neither I nor my parents wished to disclose our financial situation | 1 |
| g. | I was not eligible because I only attended school part-time | 1 |
| h. | No money was available for aid | 1 |
| i. | I missed the deadline for application | 1 |

**Please skip to Question 74.**

73. If you have ever refused any offered financial aid, what were some of the reasons?

(CIRCLE ALL THAT APPLY)

| | | |
|---|---|---|
| a. | Only work-study was offered and it would have interfered with school | 1 |
| b. | Only loans were offered and I did not want to go into debt | 1 |
| c. | Only loans were offered and I did not want to have any additional debt | 1 |
| d. | Did not need assistance | 1 |
| e. | Other (Specify ____________________) | 1 |

## ABOUT YOURSELF

74. What is your date of birth?

|___|___| |___|___| 19 |___|___|

Month Day Year

75. What is your gender?

| | |
|---|---|
| Male | 1 |
| Female | 2 |

76. What is your race?

| | (CIRCLE ONE) |
|---|---|
| American Indian or Alaska Native | 1 |
| Asian or Pacific Islander | 2 |
| Black | 3 |
| White | 4 |
| Other (Specify ____________________) | 5 |

77. What is your ethnic descent? (If more than one, please circle the one you consider the most important part of your background.)

| | (CIRCLE ONE) |
|---|---|
| Hispanic: | |
| Mexican, Mexican-American, Chicano | 01 |
| Cuban, Cubano | 02 |
| Puerto Rican, Puertorriqueno, or Boricua | 03 |
| Other (Specify ____________________) | 04 |
| Asian or Pacific Islander: | |
| Chinese | 05 |
| Filipino | 06 |
| Japanese | 07 |
| Korean | 08 |
| Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.) | 09 |
| Pacific Islander | 10 |
| Other (Specify ____________________) | 11 |
| Neither Hispanic nor Asian or Pacific Islander | 12 |

78. What is your current marital status?

| | (CIRCLE ONE) |
|---|---|
| Single, never married | 1 |
| Married | 2 |
| Separated | 3 |
| Divorced | 4 |
| Widowed | 5 |

79. How many dependent children do you have?

____________________

Number of Children

80. Are you a U.S. citizen?

| | |
|---|---|
| Yes | 1 |
| No | 2 |

81. Are you a veteran of the U.S. Armed Forces?

| | |
|---|---|
| Yes | 1 |
| No | 2 |

82. Do you have any of the following conditions?

| | | (CIRCLE ALL THAT APPLY) |
|---|---|---|
| a. | Specific learning disability | 1 |
| b. | Visual handicap | 1 |
| c. | Hard of hearing | 1 |
| d. | Deafness | 1 |
| e. | Speech disability | 1 |
| f. | Orthopedic handicap | 1 |
| g. | Health impairment | 1 |
| h. | None of the above | 1 |

83a. Regarding your high school education, did you receive:

| | (CIRCLE ONE) | |
|---|---|---|
| A diploma from a public or private high school | 1 | |
| A diploma through GED or equivalency test | 2 | |
| A certificate of high school completion | 3 | |
| Did not complete high school or equivalent | 4 | —> (Please skip to Q84) |

83b. In which year did you receive your high school diploma or certificate?

19 |___|___|
Year

84. If you completed or left high school in 1986, please write in the name and address of the high school you last attended:

School Name: ____________________

Address: ____________________

City, State, Zip: ____________________

85. When did you start your education after high school?

19 |___|___|
Year

86. During your first year of education after high school, how many hours of remedial instruction did you take or are you taking to improve your basic skills in any of the following areas? (Graduate/professional students, please answer for your first year as an undergraduate.)

| | Number of Hours (If none, enter 0) |
|---|---|
| a. Reading .................................................. | _______ |
| b. Writing .................................................. | _______ |
| c. Mathematics .......................................... | _______ |
| d. Study skills ........................................... | _______ |
| e. Other (Specify ______________________).... | _______ |

87. About how much money, before withholdings, did you and your spouse (if applicable) earn from work in 1985 and 1986? (If none, enter $0.)

| | | |
|---|---|---|
| a. Your earnings: | In 1985 | $__________.00 |
| | In 1986 | $__________.00 |
| b. Your spouse's earnings: | In 1985 | $__________.00 |
| | In 1986 | $__________.00 |

88. If your parents/guardians are no longer living, check here |____| and skip to Question 89.

a. Did you live with your parents/guardians for at least a total of six weeks

(CIRCLE ONE)

a. In 1985?

Yes .............................................. 1

No .............................................. 2

b. In 1986?

Yes .............................................. 1

No .............................................. 2

b. For how many weeks did you live with your parents/guardians

a. In 1985? ____________________

b. In 1986? ____________________

c. Did your parents/guardians provide more than $750 (including value of food, housing, insurance, etc.) toward your support

a. In 1985?

Yes .............................................. 1

No .............................................. 2

b. In 1986?

Yes .............................................. 1

No .............................................. 2

d. Did or will your parents/guardians claim you as a tax exemption on their Federal income tax return

a. In 1985?

Yes .............................................. 1

No .............................................. 2

Don't know .............................. 3

b. In 1986?

Yes .............................................. 1

No .............................................. 2

Don't know .............................. 3

c. In 1987?

Yes .............................................. 1

No .............................................. 2

Don't know .............................. 3

**If you answered yes to any of the questions 88a-88d, please skip to Question 96.**

89. How many dependents do you have for whom you provide at least half of their support, excluding yourself? (If none, enter 0.)

________________
Number of Dependents (If 0, please skip to Q93)

90. How many of these dependents are in college or other postsecondary institutions at least half-time?

________________
Number of Dependents

91. How many of these dependents are in **private** elementary or secondary schools?

________________
Number of Dependents (If 0, please skip to Q93)

92. What is the total amount of tuition paid per year for these dependents attending private elementary or secondary schools?

$____________.00
Amount of Tuition

Please respond to the following items carefully because different time periods are referenced. If you are not married, ignore references to spouse.

93. **At the end of 1986**:

a. What were your and your spouse's total assets (fair market value), including savings, checking accounts, cash, stocks, home, business, farm, etc.? $ __________.00

b. What was your and your spouse's total debt, excluding educational loans (including debts on house, other real estate, farm, or business)? $ __________.00

94. **If you filed a Federal tax return for 1985, please answer all parts of Question 94. Enter "0" if a part does not apply to you.**

**For the calendar year 1985 (January 1 - December 31, 1985):**

a. **What was your (and your spouse's) 1985 Federal adjusted gross income (IRS form 1040 - line 32, form 1040A - line 14 or form 1040EZ - line 3)?** $ ________.00

b. **What was your (and your spouse's) 1985 taxable income (IRS form 1040 - line 37, form 1040A - line 19 or form 1040EZ - line 7)?** $ ________.00

c. **How much total 1985 Federal income taxes did you (and your spouse) pay (IRS form 1040 - line 56, form 1040A - line 23 or form 1040EZ - line 9)?** $ ________.00

---

**ONLY FOR STUDENTS WHO PAID TAXES IN NEW YORK STATE**

d. **What was your (and your spouse's) total 1985 NY State taxable income?** $ ________.00

---

95. **What was your (and your spouse's) total non-taxable income in 1985?** $ ________.00

96. **In studies such as this, families sometimes are divided into groups according to how much money they make in a year. Please indicate the group which comes closest to the amount of TOTAL family income your parents/guardians make or made in a year.**

**(CIRCLE ONE)**

| | |
|---|---|
| $ 10,999 or less | 1 |
| 11,000 -16,999 | 2 |
| 17,000 - 22,999 | 3 |
| 23,000 - 29,999 | 4 |
| 30,000 - 49,999 | 5 |
| 50,000 or more | 6 |
| Don't know | 7 |

97. **What kind of job or occupation does your father/male guardian have or did he most recently have (salesperson, executive, teacher, physician, technician, secretary, assembler, etc.)?**

**Occupation:** ________________________________

98. **What kind of job or occupation does your mother/female guardian have or did she most recently have (salesperson, executive, teacher, physician, technician, secretary, assembler, etc.)?**

**Occupation:** ________________________________

**99. What was the highest level of education your mother/female guardian and father/male guardian completed?**

(CIRCLE ONE FOR EACH COLUMN)

| | Mother | Father |
|---|---|---|
| A. Less than high school diploma | 01 | 01 |
| B. GED | 02 | 02 |
| C. High school graduation | 03 | 03 |
| D. Vocational, trade or business school after high school | | |
| Less than 1 year | 04 | 04 |
| 1 but less than 2 years | 05 | 05 |
| 2 years or more | 06 | 06 |
| E. College or university | | |
| Less than 2 years of college | 07 | 07 |
| 2 or more years of college (including 2-year degree) | 08 | 08 |
| Completed college (4- or 5-year degree) | 09 | 09 |
| Master's degree or equivalent | 10 | 10 |
| Ph.D., M.D., or other advanced professional degree | 11 | 11 |
| F. Don't know | 12 | 12 |

We also would like to get some information from your parents/guardians concerning their role in financing your education after high school. Would you please list their name(s) and address in the space provided below? If they are separated or divorced, please list that parent who provides the major financial support for your postsecondary education.

Name ______________________________

Address ______________________________

City, State, Zip ______________________________

Telephone number ______________________________

---

In addition to the costs and financing of your education after high school, we are interested in obtaining information about high school courses taken by first-time students currently in postsecondary education. We plan to request high school transcripts from schools of some of the first-time students responding to this questionnaire. If you do not wish to be chosen, check here ☐ and provide your signature and the current date below.

______________________________ Your signature

____________________ Date

---

All information on this form will be kept strictly confidential.

Please return the complete booklet in the enclosed postage-paid envelope.

**THANK YOU FOR YOUR ASSISTANCE**

OMB No. 1850-0585
Expiration Date: 12/87

# U.S. DEPARTMENT OF EDUCATON
# OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

## CENTER FOR EDUCATION STATISTICS

# NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

### TELEPHONE QUESTIONNAIRE
### STUDENT SURVEY

**Student ID#:** D____________________

**Student Name:** ________________________________________

**Phone Number:** (___) __________________

**School** _________________________________ **(Record here and Column 1, Page 5)**

**Interviewer Name:** ___________________________________ **Date** _______________

Westat, Inc.
May 1987

TIME BEGAN: ____________________

## SECTION A

## FALL-ENROLLMENT CHARACTERISTICS

First, I'd like to ask some questions about your activities last fall; that is, when you were enrolled at (NAME OF SCHOOL), between September and December, 1986.

A1. Last fall, toward what degree, certificate or award were your courses leading?

| | (CIRCLE ONE) | |
|---|---|---|
| CERTIFICATE/AWARD | 01 | |
| DIPLOMA (NOT HIGH SCHOOL) | 02 | |
| ASSOCIATE'S DEGREE | 03 | |
| BACHELOR'S DEGREE | 04 | |
| POSTBACCALAUREATE CERTIFICATE | 05 | |
| MASTER'S DEGREE | 06 | |
| DOCTORAL DEGREE | 07 | |
| FIRST-PROFESSIONAL DEGREE | 08 | |
| UNDECIDED | 09 | |
| COURSES WERE NOT LEADING TOWARD A DEGREE, CERTIFICATE OR OTHER FORMAL AWARD | 10 | (A3) |
| OTHER (SPECIFY)________________________) | 11 | |

A2. When do you expect to obtain this degree or other certificate or award?

|___|___| MONTH 19 |___|___| YEAR

A3. Last fall, what was your level in school?

| | | |
|---|---|---|
| FRESHMAN OR FIRST YEAR | 1 | (A4) |
| SOPHOMORE OR SECOND YEAR | 2 | (B1) |
| JUNIOR OR THIRD YEAR | 3 | (B1) |
| SENIOR OR FOURTH YEAR | 4 | (B1) |
| FIFTH YEAR OR MORE, UNDERGRADUATE | 5 | (B1) |
| FIRST YEAR GRADUATE OR PROFESSIONAL (AFTER A BACHELOR'S DEGREE) | 6 | (A4) |
| CONTINUING GRADUATE OR PROFESSIONAL | 7 | (B1) |

A4. When you applied to the school you were attending last fall, to how many other schools did you apply?

| | | |
|---|---|---|
| NONE OTHER | 0 | (B1) |
| NUMBER OF OTHER SCHOOLS ______________ | | (A5) |

ASK A5 THROUGH A9 IN TURN FOR EACH SCHOOL

A5. What was your first choice among all the schools to which you applied? This may include the school you were attending last fall.

| | FIRST CHOICE | What was your second choice? | What was your third choice? |
|---|---|---|---|
| NAME OF OTHER SCHOOL ....... | SCHOOL ATTENDED LAST FALL......... 1 (A7)<br>____<br>____<br>____<br>(RECORD COMPLETE NAME) | SCHOOL ATTENDED LAST FALL......... 1 (A7)<br>____<br>____<br>____<br>(RECORD COMPLETE NAME) | NO THIRD CHOICE .. 0 (B1)<br>SCHOOL ATTENDED LAST FALL ........ 1 (A7)<br>____<br>____<br>____<br>(RECORD COMPLETE NAME) |
| CITY ......... | ____ | ____ | ____ |
| STATE ........ | ____ | ____ | ____ |
| A6. Were you accepted at (NAME OF SCHOOL)? | YES .............. 1<br>NO ............... 2 | YES .............. 1<br>NO ............... 2 | YES ............. 1<br>NO .............. 2 |
| A7. Did you apply for financial aid at (NAME OF SCHOOL)? | YES .............. 1<br>NO ............... 2 (NEXT COLUMN) | YES .............. 1<br>NO ............... 2 (NEXT COLUMN) | YES ............. 1<br>NO .............. 2 (B1) |
| A8. Were you offered financial aid at (NAME OF SCHOOL)? | YES .............. 1<br>NO ............... 2 (NEXT COLUMN) | YES .............. 1<br>NO ............... 2 (NEXT COLUMN) | YES ............. 1<br>NO .............. 2 (B1) |
| A9. How much total aid, including grants, loans, work study, etc., were you offered at (NAME OF SCHOOL)? (IF NONE, ENTER 0) | $________.00 | $________.00 | $________.00 |

## SECTION B

## SPRING-ENROLLMENT CHARACTERISTICS

The next few questions ask about the spring term; that is, your status in school in April of this year.

B1. Were you enrolled in school in April of this year?

YES ........................................ 1 (B3)
NO ........................................ 2 (B2)

B2. Were you not enrolled in April because you had ...

| | YES | NO |
|---|---|---|
| a. completed your degree or course of study? | 1 (B11) | 2 |
| b. satisfied your current education needs? | 1 (B11) | 2 (B11) |

B3. Were you enrolled in the same school in April as you were attending last fall?

YES ........................................ 1 (B5)
NO ........................................ 2 (B4)

B4. What is the name and location of the school you attended in April?

NOTE: ENTER NAME HERE AND AT THE TOP OF COLUMN 2, SPRING, SECTION C, PAGE 5

SCHOOL NAME ____________________

ADDRESS ____________________

CITY, STATE, ZIP ____________________

B5. Were you enrolled in the same degree program or course of study in April as you were last fall?

YES ........................................ 1 (B8)
NO ........................................ 2 (B6)

B6. What was the name of the program, field of study, or your contemplated major in April?

______________________________

B7. How long in months is the (PROGRAM, FIELD OF STUDY, OR CONTEMPLATED MAJOR) program from the beginning of your studies to your anticipated degree or certificate completion? (IF R ANSWERS YEARS, PROBE FOR APPROXIMATE NUMBER OF MONTHS)

______________

NUMBER OF MONTHS

B8. How many courses were you taking in April?

______________

NUMBER OF COURSES

B9. How many credit hours was that?

| | | |
|---|---|---|
| NONE ...................................... | 00 | (B10) |
| CREDIT HOURS ______________ ... | | (B11) |
| DON'T KNOW ................................ | 98 | (B10) |

B10. Approximately how many hours of instruction were you scheduled to attend each week in April?

______________

NUMBER OF HOURS
PER WEEK

B11. What is the highest level of education you expect to complete?

A. VOCATIONAL, TRADE OR BUSINESS SCHOOL AFTER HIGH SCHOOL

| | |
|---|---|
| LESS THAN 1 YEAR ........................................ | 1 |
| 1 YEAR BUT LESS THAN 2 YEARS ............................ | 2 |
| 2 YEARS OR MORE ......................................... | 3 |

B. COLLEGE OR UNIVERSITY

| | |
|---|---|
| LESS THAN 2 YEARS OF COLLEGE ............................ | 4 |
| 2 OR MORE YEARS OF COLLEGE (INCLUDING 2-YEAR DEGREE) ..................................... | 5 |
| COMPLETE COLLEGE (4- OR 5-YEAR DEGREE) .................. | 6 |
| MASTER'S DEGREE OR EQUIVALENT ........................... | 7 |
| Ph.D., M.D., OR OTHER ADVANCED PROFESSIONAL DEGREE ..................................... | 8 |

## SECTION C

## SCHOOL EXPENSES

| ASK EACH COLUMN IN TURN | COLUMN 1<br>LAST FALL | COLUMN 2<br>IN THE SPRING (APRIL) |
|---|---|---|
| SCHOOL NAME ............................ | ______________<br>(COVER) | SAME AS FALL....... 1 (C1)<br>______________ (C2)<br>(B4, PAGE 3) |
| START FALL QUESTIONS WITH C2 | | |
| C1. WAS FALL TUITION PAID BY TERM? (FROM COLUMN 1, QUESTION C3, THIS PAGE) | | YES .............. 1 (C2)<br>NO ............... 2 (C4) |
| C2. (The next few questions ask about the costs you incurred going to school. First of all, last fall/In the spring) how much did you pay to the school you were attending for . . . (IF NONE, ENTER 0) | | |
| Tuition? .......................... | $__________.00 | $__________.00 |
| Fees? ............................. | $__________.00 | $__________.00 |
| C3. Did the [AMOUNT OF TUITION FROM C2] cover just the [fall/spring] term or did it cover the entire course of study? | TERM ........ 1<br>COURSE OF STUDY ...... 2 | TERM ........ 1<br>COURSE OF STUDY ...... 2 |
| C4. (Last fall/In the spring) how much did you spend for books and supplies? | $__________.00 | $__________.00 |
| C5. (Last fall/In the spring), while enrolled in school, did you reside . . . | | |
| a. With your parents, guardians or other relatives, .................. | ........ 1 (C8) | ........ 1 (C8) |
| b. In your own residence not with parents or, ........................ | ........ 2 (C8) | ........ 2 (C8) |
| c. In school-owned or-controlled housing? .......................... | ........ 3 (C6) | ........ 3 (C6) |

| | COLUMN 1 LAST FALL | | COLUMN 2 IN THE SPRING (APRIL) | |
|---|---|---|---|---|
| C6. How much did you pay to the school for housing for the (fall term/spring term)? | $________.00 | | $________.00 | |
| C7. How much did you pay to the school for "school-provided" meals for the (fall term/spring term)? | $________.00 (C10b) | | $________.00 (C10b) | |
| C8. Though you didn't live at school (last fall/in the spring), did you pay the school for "school-provided meals"? Such a program may be called a "meal plan." | YES .... 1 (C9)<br>NO ..... 2 (C10) | | YES .......... 1 (C9)<br>NO ........... 2 (C10) | |
| C9. How much did you pay per term for school-provided meals? | $________.00 | | $________.00 | |
| ASK C10-C11 IN SEQUENCE FOR EACH TERM<br>C10. (Last fall/In the spring) how much were your average monthly living expenses for (INSERT ITEM)?<br>C11. How much of the (AMOUNT FROM C-10) is directly related to education? PROBE: Expenses you wouldn't have if not in school. | C10 AVERAGE MONTHLY | C11 RELATED TO EDUCATION | C10 AVERAGE MONTHLY | C11 RELATED TO EDUCATION |
| a. rent or mortgage and utilities? ........................... | a.$____.00 | $\_\_\_\_.00 | a.$____.00 | $____.00 |
| b. food including meals in restaurants but excluding any meal plans? ............ | b.$____.00 | $\_\_\_\_.00 | b.$____.00 | $____.00 |
| c. transportation costs other than those associated with commuting to school such as auto loan payments, auto service, etc.? ...................... | c.$____.00 | $\_\_\_\_.00 | c.$____.00 | $____.00 |
| d. personal items such as clothing, recreation, vacation trips, cleaning, etc.? ................................ | d.$____.00 | $\_\_\_\_.00 | d.$____.00 | $____.00 |
| e. child care such as day care, baby-sitting? ............................ | e.$____.00 | $\_\_\_\_.00 | e.$____.00 | $____.00 |
| f. education loans? ...................... | f.$____.00 | $\_\_\_\_.00 | f.$____.00 | $____.00 |

| | COLUMN 1<br>LAST FALL | COLUMN 2<br>IN THE SPRING (APRIL) |
|---|---|---|
| C12. (Last fall/In the spring) what was your average monthly expense for . . .<br>a. Commuting to school ............... | $________.00 | $________.00 |
| C13. (Last fall/In the spring) how much were your other monthly living expenses? Please include such items as phone, child support, insurance, medical, loans other than education, etc. | $________.00 | $________.00 |
| C14. How much of the (AMOUNT FROM C.13) is directly related to education? PROBE: Expenses you wouldn't have if you weren't in school. | $________.00 | $________.00 (D1) |
| WAS STUDENT ENROLLED IN APRIL?<br>(FROM QUESTION B1, PAGE 3)<br>YES .................... 1 (C15)<br>NO .................... 2 (D1) | | |
| C15. In the spring, were your education-related expenses approximately the same as in the fall? | YES ....1 (D1)<br>NO .....2 (NEXT COLUMN, C1, PAGE 5) | |

## SECTION D

## MEETING EDUCATION EXPENSES

To meet your education expenses you probably used money or aid from a variety of sources. The next few questions ask about these sources and cover the entire period you were enrolled from September 1986 through May 1987.

D1. How much of [INSERT ITEM] have been, or will be used to pay for your 1986-87 school year expenses? Please do NOT include money from grants, scholarships, loans, or funds from your parents/guardians, or other relatives. [IF NONE ENTER 0]

SEPTEMBER-MAY
1986-87

a. your own earnings and savings .......... $__________.00

b. your spouse's earnings ................ $__________.00

D2. Excluding loans, how much money have your parents/guardians contributed to your 1986-1987 school year expenses?

$______________.00

D3. How much money in loans have you received from your parents/guardians for 1986-87 school year expenses?

$______________.00

D4. In addition to the financial support you just mentioned for the year 1986-1987, did your parents/guardians...

| | YES | NO |
|---|---|---|
| a. help pay for your automobile (auto loan, auto repairs, insurance, etc.)? | 1 | 2 |
| b. provide your food? | 1 | 2 |
| c. provide your housing? | 1 | 2 |
| d. provide you with the use of charge card(s)? | 1 | 2 |
| e. provide you with clothing or other support? | 1 | 2 |

IF ALL "NO", SKIP
TO D6; OTHERWISE,
CONTINUE WITH D5

D5. How much money do you think this support cost your parents/guardians for the 1986-1987 school year?

$__________________.00

D6. Approximately, how much money did other relatives or friends (including spouse's parents) contribute toward your 1986-87 school year expenses?

$__________________.00

D7. How much money did or will you receive in loans from other relatives or friends (including your spouse's parents) to help pay for your 1986-87 school year expenses?

$__________________.00

D8. For the 1986-87 school year, did you apply for financial aid such as grants, scholarships, loans, work study, etc.? (ENTER HERE AND BOX 2, PAGE 24)

YES ........................................ 1 (D9)
NO ........................................ 2 (D17)

D9. Were you awarded financial aid for the 1986-87 school year? (Other than aid from family, friends or relatives.)

YES ........................................ 1 (D10)
NO ........................................ 2 (D17)

D10. What is the total amount of financial aid you were awarded from all sources (except your family, other relatives, or friends) for the 1986-87 school year? Please include the total amount awarded, not just the amount of financial aid received up to now.

$__________________.00

D11. Of the [AMOUNT FROM D10] awarded in 1986-87, how much was from grants or scholarships?

NONE ........................................ 0 (D13)
AMOUNT $______________.00 .............. (D12)

D12. Was the source of the funding for the grants or scholarships ...

| | IF YES: How much was the award from [CATEGORY] for the 1986-87 school year? | NO | DK |
|---|---|---|---|
| a. the Federal government? .......... | $__________.00 | 2 | 8 |
| b. a state government? .............. | $__________.00 | 2 | 8 |
| c. an institution? .................. | $__________.00 | 2 | 8 |
| d. or someone else? (SPECIFY: ______________________). | $__________.00 | 2 | 8 |

D13. Of the [AMOUNT FROM D10] awarded in 1986-87, how much was from loans?

NONE ........................................ 0 (D15)
AMOUNT $__________.00 .............. (D14)

D14. Did you receive ...

| | IF YES: How much was the loan from [CATEGORY] for the 1986-87 school year? | NO | DK |
|---|---|---|---|
| a. a guaranteed student loan (GSL)?.. | $__________.00 | 2 | 8 |
| b. any other Federal loans? ......... | $__________.00 | 2 | 8 |
| c. a state loan? .................... | $__________.00 | 2 | 8 |
| d. an institutional loan? ........... | $__________.00 | 2 | 8 |
| e. or some other type of loan? (SPECIFY: ______________________).... | $__________.00 | 2 | 8 |

D15. Of the [AMOUNT FROM D10] awarded in 1986-87, how much was from other types of aid such as workstudy, fellowships, etc.?

NONE ........................................ 0 (D17)

AMOUNT $__________.00 .............. (D16)

D16. **Was the source of the aid ...**

| | **IF YES: How much was the award from [CATEGORY] for the 1986-87 school year?** | **NO** | **DK** |
|---|---|---|---|
| a. a work-study program? ............................ | $__________.00 | 2 | 8 |
| b. a fellowship of any kind? ........................ | YES............. 1 | 2(d) | 8(d) |
| c. was the fellowship funded by ... | | | |
| 1. the Federal government? ..................... | $__________.00 | 2 | 8 |
| 2. the state government? ....................... | $__________.00 | 2 | 8 |
| 3. an institution? ............................. | $__________.00 | 2 | 8 |
| 4. or someplace else? (SPECIFY: ____________________) ... | $__________.00 | 2 | 8 |
| d. financial assistance from employer? ............... | $__________.00 | 2 | 8 |
| e. financial assistance from the military, other than income? ..................................... | $__________.00 | 2 | 8 |
| f. any other source? (SPECIFY: ______________________________) .... | $__________.00 | 2 | 8 |

D17. For the 1986-87 school year, were your tuition and/or fees waived in part or in full?

YES ........................................ 1 (D18)
NO ......................................... 2 (D19)

D18. Approximately how much was waived?
PROBE: Just roughly?

$________________.00

D19. Overall, would you say your education expenses for the 1986-1987 school year are higher than your financial resources, including financial aid? (ENTER HERE AND BOX 1, PAGE 23)

YES ........................................ 1
NO ......................................... 2

D20. Up through May 1987, and including any previous postsecondary school years, what is the total amount of money you have borrowed for education purposes? Please include loans from friends, relatives, banks, etc. and loans that have been repaid.

ZERO .................................... 0 (E1)

$ ____________________.00 ............... (D21)

D21. Of the [AMOUNT FROM D20] you borrowed, how much do you still owe?

$____________________.00

## SECTION E

## WORK AND EARNING HISTORY

The next few questions ask about jobs you may have had over the past year.

E1. First of all, did you work last summer, that is, at any time between June and August 1986?

YES ........................................ 1
NO ........................................ 2 (E3)

E2. Before witholdings, what were your total earnings between June and August 1986? PROBE: Approximately?

$______________.00

| ASK EACH COLUMN IN TURN | COLUMN 1 LAST FALL | COLUMN 2 IN THE SPRING (APRIL) |
|---|---|---|
| E3. (Now think about last fall/In the spring) were you working for pay at a full-time or part time job, including a teaching or research assistantship? | YES....... 1 (E6)<br>NO........ 2 (E3-SPRING) | YES....... 1<br>NO........ 2 (E15) |
| | | DID STUDENT WORK IN FALL?<br>YES ...... 1 (E4)<br>NO ....... 2 (E6) |
| E4. Is the job you had in the spring the same one you had last fall? | | YES....... 1 (E15)<br>NO........ 2 |
| E5. When did the job you had last fall end? | | \|__\|__\| \|__\|__\|<br>MONTH YEAR |
| E6. (Last fall/In the spring) were you a teaching or research assistant in a college or university? | YES....... 1<br>NO........ 2 (E9) | YES....... 1<br>NO........ 2 (E9) |

| | COLUMN 1 LAST FALL | COLUMN 2 IN THE SPRING (APRIL) |
|---|---|---|
| E7. As a teaching or research assistant, how much did you earn before withholdings? | $________.00<br>PER MONTH....... 1<br>PER TERM........ 2 | $________.00<br>PER MONTH....... 1<br>PER TERM........ 2 |
| E8. (Last fall/In the spring) did you have any jobs in addition to your teaching or research assistantship? | YES....... 1<br>NO........ 2 (E14) | YES....... 1<br>NO........ 2 (E15) |
| IF MORE THAN ONE JOB, ASK QE9 TO E14 FOR THE JOB FROM WHICH THE MOST INCOME WAS EARNED. | | |
| E9. (Last fall/In the spring) what type of company or organization (did/do) you work for, that is, what do they make or do? (Retail store, manufacturing plant, state government, R&D firm, restaurant, etc.) | ________<br>________<br>________ | ________<br>________ (E11)<br>________ |
| E10. When did you start working at [NAME OF JOB]? | \|__\|__\| \|__\|__\| (E12)<br>MONTH YEAR | |
| E11. How long have you worked at [NAME OF JOB]? | | ________<br>WEEKS |
| E12. Approximately how many hours per week did you usually work at [NAME OF JOB] (last fall/in the spring)? | ________<br>HOURS | ________<br>HOURS |

| | COLUMN 1<br>LAST FALL | COLUMN 2<br>IN THE SPRING (APRIL) |
|---|---|---|
| E13. **Before withholdings, how much money did you earn at this job (in the fall/in the spring)?** | $__________<br>HOUR......... 1<br>WEEK......... 2<br>MONTH........ 3<br>TERM......... 4 | $__________<br>HOUR....... 1 (E15)<br>WEEK....... 2 (E15)<br>MONTH...... 3 (E15)<br>TERM....... 4 (E15) |
| E14. **From September, 1986 through February, 1987, what were your total earnings before withholding? Please include ALL jobs (including teaching or research assistantships) in your answer. Exclude grants or loans.** | $__________.00 | |
| | NEXT COLUMN<br>E3 SPRING, PAGE 13 | |

E15. Considering all of 1986, how much money, before withholding did you earn from work? If you are married, please do not include spouse's income in answer.

$______________.00

E16. About how much money, before withholding did you earn from work during 1985? (Please do not include spouse's income)

$______________.00

E17. What about your spouse, how much money did s/he earn from work. . .

a. during 1986? $____________.00
NOT MARRIED 1986 ..................0

b. during 1985? $____________.00
NOT MARRIED 1985 ..................0

E18. (Will/Did) your parents/guardians claim you as a tax exemption on their federal income tax return for . . .

| | YES | NO | DON'T KNOW | PARENTS/ GUARDIAN DECEASED | |
|---|---|---|---|---|---|
| a. 1987 (due by NEXT April 1988)? .............. | 1 | 2 | 8 | 3 | (E21) |
| b. 1986 (due this past April 1987)? ........... | 1 | 2 | 8 | | |
| c. 1985 (due a year ago April 1986)? ........... | 1 | 2 | 8 | | |

E19. Did your parents/guardians provide more than $750 toward your support in . . .
(includes value of food, housing, insurance, etc.)

| | | | |
|---|---|---|---|
| a. 1986? ........................................ | 1 | 2 | 8 |
| b. 1985? ........................................ | 1 | 2 | 8 |

E20. Did you live with your parents/guardians for at least a total of six weeks in . . .

| | | | |
|---|---|---|---|
| a. 1986? ........................................ | 1 | 2 | 8 |
| b. 1985? ........................................ | 1 | 2 | 8 |

HAS R ANSWERED "YES" TO ANY QUESTION BETWEEN E18 AND E20?

YES .......... 1 (F1)
NO ........... 2 (E21)

E21. Excluding yourself, how many dependents do you have for whom you provide at least half of their support?

NONE ...................................... 0 (E25)

________________
DEPENDENTS

E22. Of these dependents, how many are in college or other postsecondary schools at least half-time?

NONE ...................................... 0

________________
NUMBER

E23. How many dependents are in private elementary or secondary schools?

NONE ...................................... 0 (E25)

________________
NUMBER

E24. What is the total amount of tuition paid per year for your dependents attending private elementary or secondary schools?

$_______________.00
TUITION

E25. At the end of 1986, what were (your/you and your spouse's) total assets? In your estimate please include the fair market value of your home, farm or business, as well as savings, cash, checking accounts, and stocks.

$_______________.00
TOTAL ASSETS

E26. At the end of 1986, what was (your/you and your spouse's) total debt excluding education loans. In your estimate, please include money owed on your house, other real estate, business, farm, etc.

$_______________.00
TOTAL DEBT

E27. My next few questions ask for information from your 1985 Federal tax return. What was (your/you and your spouse's) ...

[IF NEEDED, REMIND RESPONDENT OF CONFIDENTIALITY. 1985 TAXES WERE DUE A YEAR AGO APRIL 1986.]

a. 1985 adjusted gross income?
  IRS 1040 - LINE 32 $_______________.00
  IRS 1040A - LINE 14
  IRS 1040EZ - LINE 3

b. 1985 taxable income?
  IRS 1040 - LINE 37 $_______________.00
  IRS 1040A - LINE 19
  IRS 1040EZ - LINE 7

c. 1985 NY State taxable income? NOT FROM NY ..........0
$_______________.00

## SECTION F

## DEMOGRAPHICS

F1. What is your date of birth?

|_|_| |_|_| 19|_|_|
MONTH DAY YEAR

F2. [IF NOT OBVIOUS, ASK:] Are you . . .

| | |
|---|---|
| Male, or | 1 |
| Female? | 2 |

F3. Are you . . .

| | | |
|---|---|---|
| White, | 1 | (F4) |
| Black, | 2 | (F4) |
| American Indian or Alaska Native, or | 3 | (F7) |
| Asian or Pacific Islander? | : | F6) |

F4. Are you Hispanic?

| | | |
|---|---|---|
| YES | 1 | (F5) |
| NO | 2 | (F7) |

F5. Are you . . .

| | | |
|---|---|---|
| Mexican or Mexican-American (Chicano) | 1 | (F7) |
| Cuban (Cubano) | 2 | (F7) |
| Puerto Rican (Puertorriqueno or Boricua) | 3 | (F7) |
| Or of some other Hispanic descent? (SPECIFY ________________) | 4 | (F7) |

F6. Are you . . .

| | |
|---|---|
| Chinese, | 1 |
| Filipino, | 2 |
| Japanese, | 3 |
| Korean, | 4 |
| Southeast Asian (Vietnamese, Laotian, Cambodian/Kampuchean, etc.), | 5 |
| Pacific Islander, | 6 |
| or of some other Asian descent? (SPECIFY________________________) | 7 |

F7. Are you . . .

| | |
|---|---|
| single, never married, | 1 |
| married, | 2 |
| separated, | 3 |
| divorced, or | 4 |
| widowed? | 5 |

F8. Are you a U.S. citizen?

| | |
|---|---|
| YES | 1 |
| NO | 2 |

F9. Are you a veteran of the U.S. Armed Forces?

| | |
|---|---|
| YES | 1 |
| NO | 2 |

F10. Regarding your high school education, did you receive ...

| | (CIRCLE ONE) | |
|---|---|---|
| a. a diploma from a public or private high school, | 1 | (F11) |
| b. a diploma through GED or equivalency test, | 2 | (F11) |
| c. a certificate of high school completion, | 3 | (F11) |
| or | | |
| d. did you not complete high school or high school equivalent? | 4 | (F13) |

F11. In what year did you receive your high school diploma or certificate? (ENTER HERE AND BOX 3, PAGE 25)

| | | |
|---|---|---|
| 1986 | 1 | (F12) |
| OTHER YEAR | 19 \|__\|__\| | (F13) |

F12. What is the name and address of the high school that you last attended?

SCHOOL NAME ______________________________

ADDRESS ______________________________

CITY, STATE, ZIP ______________________________

F13. The next few questions ask about health conditions you may have.

| | YES | NO | |
|---|---|---|---|
| a. Are you hard of hearing? | 1 | 2 | (F14) |
| b. Do you have any deafness? | 1 | 2 | |

F14. Do you have . . .

| | YES | NO |
|---|---|---|
| a. a specific learning disability? | 1 | 2 |
| b. a visual handicap? | 1 | 2 |
| c. a speech disability? | 1 | 2 |
| d. an orthopedic handicap? | 1 | 2 |
| e. or any other health impairment? | 1 | 2 |

F15. My next few questions are about your parents.

What kind of job or occupation does your father/male guardian have or did he have most recently?

______________________________

______________________________

F16. What kind of job or occupation does your mother/female guardian have or did she have most recently?

______________________________

______________________________

F17. What is the highest grade or level of school that your ...

| | Father/ male guardian completed? | Mother/ female guardian completed? |
|---|---|---|
| a. LESS THAN HIGH SCHOOL DIPLOMA | 01 | 01 |
| b. GED | 02 | 02 |
| c. HIGH SCHOOL GRADUATE | 03 | 03 |
| d. VOCATIONAL, TRADE OR BUSINESS SCHOOL AFTER HIGH SCHOOL | | |
| LESS THAN 1 YEAR | 04 | 04 |
| 1 BUT LESS THAN 2 YEARS | 05 | 05 |
| 2 YEARS OR MORE | 06 | 06 |
| e. COLLEGE OR UNIVERSITY | | |
| LESS THAN 2 YEARS | 07 | 07 |
| 2 OR MORE YEARS (INCLUDING 2-YEAR DEGREE) | 08 | 08 |
| COMPLETED COLLEGE (4- OR 5-YEAR DEGREE) | 09 | 09 |
| MASTER'S DEGREE OR EQUIVALENT | 10 | 10 |
| PhD, MD, ADVANCED PROFESSIONAL DEGREE | 11 | 11 |
| f. DON'T KNOW | 98 | 98 |

F18. In studies such as this, families are sometimes divided into groups according to how much money they make in a year. What is your estimate of your parents' or guardians' total yearly income? Is it . . .

| | |
|---|---|
| less than $11,000, | 1 |
| $11,000 to $16,999, | 2 |
| $17,000 to $22,999, | 3 |
| $23,000 to $29,999, | 4 |
| $30,000 to $49,999, or | 5 |
| $50,000 or more? | 6 |
| DON'T KNOW | 8 |

IF PARENTS/GUARDIANS DECEASED, SKIP TO G-1.

F19. We also would like to get information directly from some parents/guardians concerning their role in financing your education after high school. May I have their name and address? (IF PARENTS ARE SEPARATED OR DIVORCED, ASK FOR PARENT WHO PROVIDES THE MAJOR FINANCIAL SUPPORT FOR POSTSECONDARY EDUCATION.)

NAME ____________________

ADDRESS ____________________

CITY ____________________ STATE ______ ZIP ____________

TELEPHONE NUMBER (________)____________________

RECORD BELOW REASON STUDENT DID NOT PROVIDE PARENT INFORMATION

____________________

____________________

## SECTION G

## CHOICE QUESTIONS

My last questions are about some of the decisions you have made or will make.

G1. First, I'm going to read a list of statements that describe reasons why some students selected the school they chose to attend.

As I read each one, please tell me if the reason was very important, somewhat important, or not important to you in deciding upon the school you attended last fall.

Consider the statement [INSERT STATEMENT CHECKED], was this very important, somewhat important, or not important to you in deciding upon the school you attended last fall?

What about [INSERT NEXT STATEMENT], was it very important, somewhat important, or not important to you ...

ASK ABOUT EACH STATEMENT IN ORDER,
STARTING WITH THE STATEMENT CHECKED.

| START WITH | | | Very important | Somewhat important | Not important |
|---|---|---|---|---|---|
| ___ | a. | The school had a good reputation .................... | 1 | 2 | 3 |
| ___ | b. | I obtained the financial aid I needed at the school .............................................. | 1 | 2 | 3 |
| ___ | c. | The school offered the course of study I wanted .... | 1 | 2 | 3 |
| ___ | d. | My parents/guardians wanted me to attend the school ............................................ | 1 | 2 | 3 |
| ___ | e. | I had a better chance to get a job at the school ... | 1 | 2 | 3 |
| ___ | f. | My tuition and other direct school expenses were less at the school than at other schools ............ | 1 | 2 | 3 |
| ___ | g. | My other living costs at the school were less than at other schools ............................... | 1 | 2 | 3 |
| ___ | h. | My friends attended the school ...................... | 1 | 2 | 3 |
| ___ | i. | The school was close to my home ..................... | 1 | 2 | 3 |
| ___ | j. | I could work while attending the school ............ | 1 | 2 | 3 |
| ___ | k. | I could live at home ................................ | 1 | 2 | 3 |
| ___ | l. | The school was far away from my home ............... | 1 | 2 | 3 |
| ___ | m. | The school had a good reputation for placing its graduates ...................................... | 1 | 2 | 3 |

BOX 1

HAS R SAID THAT 86-87 SCHOOL EXPENSES ARE HIGHER THAN FINANCIAL RESOURCES?
(FROM QUESTION D19, PAGE 11)

YES ............ 1 (G2)
NO ............. 2 (BOX 2)

G2. I'm going to read you a list of statements that may describe actions that you may have taken, or might expect to take, to remedy a situation in which your school expenses are higher than your financial resources. As I read each one, please tell me whether you have already taken this action, may take action, or will not take this action.

First, [INSERT STATEMENT] have you already taken this action, may you take this action, or will you not take this action?

How about [NEXT STATEMENT]...

| START WITH | | Have already taken this action | May take action | Will not take action |
|---|---|---|---|---|
| ______ | a. Apply for a loan or for another loan, if you already have one .................... | 1 | 2 | 3 |
| ______ | b. Work or take an additional job ............ | 1 | 2 | 3 |
| ______ | c. Ask parents for money ...................... | 1 | 2 (e) | 3 (e) |
| | d. Ask parents for more money ................ | 1 | 2 | 3 |
| ______ | e. Reduce course load ........................ | 1 | 2 | 3 |
| ______ | f. Cut down on expenses ....................... | 1 | 2 | 3 |
| ______ | g. Withdraw from school ....................... | 1 | 2 | 3 |
| ______ | h. Transfer to a less expensive school ........ | 1 | 2 | 3 |
| ______ | i. Move back home ............................. | 1 | 2 | 3 |
| (ALWAYS ASK LAST:) | | | | |
| ______ | j. Is there any other action? (SPECIFY ______________________________ ______________________________).. | 1 | 2 | 3 |

BOX 2

DID R APPLY FOR FINANCIAL AID FOR 1986-87? (FROM QUESTION D8, PAGE 9)

YES .................................. 1 (G5)
NO .................................. 2 (G3)

G3. (Though you may not have applied for financial aid for the 1986-1987 school year), have you ever applied for financial aid, such as a grant, scholarship, fellowship, loan, or work study for your education beyond high school?

YES .................................. 1 (G5)
NO .................................. 2 (G4)

G4. I am going to read a list of statements that describe why some students do not apply for financial aid. As I read each one, please tell me if the statement describes an important reason why you have not applied for financial aid.

| START WITH | | YES | NO |
|---|---|---|---|
| ______ | a. My family and I could pay for my education | 1 | 2 |
| ______ | b. I was not willing to go into debt for schooling | 1 | 2 |
| ______ | c. Family income was too high to qualify for financial aid | 1 | 2 |
| ______ | d. My grades and/or test scores were not high enough to qualify for financial aid | 1 | 2 |
| ______ | e. It was too hard to apply for financial aid | 1 | 2 |
| ______ | f. Neither I nor my parents wished to disclose our financial situation | 1 | 2 |
| ______ | g. I was not eligible because I only attended school part-time | 1 | 2 |
| ______ | h. No money was available for aid | 1 | 2 |
| ______ | i. I missed the deadline for application | 1 | 2 |

SKIP TO BOX 3

G5. Have you ever refused to accept any offered financial aid?

|  |  |  |
|---|---|---|
| YES .................................... | 1 | (G6) |
| NO .................................... | 2 | (BOX 3) |

G6. I am going to read a list of statements that describe why some students may refuse to accept financial aid. As I read each one, please tell me if the statement describes why you refused financial aid.

| START WITH |  |  | YES | NO |
|---|---|---|---|---|
| ______ | a. | Only work-study was offered and it would have interfered with school .............................. | 1 | 2 |
| ______ | b. | Only loans were offered and I did not want to go into debt .............................. | 1 | 2 |
| ______ | c. | Only loans were offered and I did not want to have any additional debt .............................. | 1 | 2 |
| ______ | d. | Did not need assistance .............................. | 1 | 2 |
| (ALWAYS ASK LAST:) |  |  |  |  |
| ______ | e. | Was there any other reason you refused? (SPECIFY ______________________________) .. | 1 | 2 |

BOX 3
DID STUDENT GRADUATE FROM
HIGH SCHOOL IN 1986?
(FROM QUESTION F11, PAGE 19)

YES . . . 1 (CLOSING 1)
NO . . . 2 (CLOSING 2)

CLOSING 1

We are interested in obtaining information about the courses that you took while in high school. To do this we would like to ask your high school for your transcript. Are you willing to participate in this portion of the student aid survey?

YES .......................................... 1
NO ........................................... 2

INTERVIEWER'S SIGNATURE:

________________________________________

DATE OF INTERVIEW:

________________________________________

Thank you very much for your assistance.

CLOSING 2

Thank you very much for your assistance.

TIME END: ____________________

OMB No. 1850-0585
Expiration Date: 12/87

# U.S. DEPARTMENT OF EDUCATON
# OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

## CENTER FOR EDUCATION STATISTICS

# NATIONAL POSTSECONDARY STUDENT AID STUDY
# (NPSAS)

### TELEPHONE FOLLOWUP QUESTIONNAIRE PROMPT
### STUDENT SURVEY

Student ID#: D____________________

Student Name: ____________________________________________

Phone Number: (___)____________________ School ____________________

Interviewer Name: ______________________________ Date ______________

Westat, Inc.
May 1987

## PART 1

## ASK TO SPEAK WITH STUDENT IDENTIFIED ON THE RESPONDENT INFORMATION SHEET

A. Hello, my name is ______________________, and I'm calling on behalf of the U.S. Department of Education which is sponsoring the National Postsecondary Student Aid Study. Have you received a copy of the questionnaire?

Yes .......................................... 1 (B)
No ............................................ 2 (PART 3)

B. Have you had a chance to complete and mail it back?

Yes .......................................... 1 (PART 2)
No ............................................ 2 (PART 3)

## PART 2

## STUDENT HAS MAILED SURVEY BACK TO WESTAT

Approximately when did you mail the questionnaire?

DATE __________________

Thank you very much. Your responses are very important to the outcome of the survey.

TERMINATE (CODE CASE AN S1 ON CALL RECORD)

## PART 3

## STUDENT HAS NOT MAILED SURVEY BACK TO WESTAT

A. First let me tell you about the survey. As I mentioned, it is being sponsored by the United States Department of Education and it is designed to assess how postsecondary students meet the costs of their education, how financial aid helps meet these costs, and the need for additional aid or aid progress. This information will help the Department of Education provide better service to students like yourself, and provide better advice to the United States Congress on the needs of students and their families who are trying to pay for postsecondary education. Since we are on a tight time schedule, we would like to ask the questions over the phone now.

[MAKE EVERY EFFORT TO CONTINUE INTERVIEW OVER PHONE]

| | |
|---|---|
| YES, CONTINUE ON PHONE NOW ........... | 1 (MAIN QUESTIONNAIRE) |
| YES, CONTINUE ON PHONE SOME OTHER TIME ................................ | 2 (SCHEDULE APPT AND RECORD ON CALL RECORD) |
| NO, STUDENT WANTS COPY OF QUESTIONNAIRE MAILED ...................... ........................................................................ | 3 (B) (CODE 9 ON CALL RECORD) |
| NO, STUDENT WILL MAIL QUESTIONNAIRE ........................................ ........................................................................ | 4 (C) (CODE S2 ON CALL RECORD) |
| NO, (SPECIFY REASON) ______________ ______________________________ | (THANK R AND TERMINATE) |

B. In order to send you another copy of the questionnaire, we would like to verify your name and address.

[READ INFORMATION FROM RESPONDENT INFORMATION SHEET. RECORD ANY NEW INFORMATION]

You should receive the form in a few days, by (DATE) ______________. (ASK C)

C. When do you think you might be able to return the survey?

DATE ________________

Thank you very much. Your responses are very important to the outcome of the survey.

Should we not receive the questionnaire we may call you back to obtain the information over the phone.

TERMINATE

U.S. Department of Education
Office of Educational Research and Improvement

Center for Education Statistics

# National Postsecondary Student Aid Study

## *Parent Questionnaire*

Put Label Here
* * * * * * * * * * * * *

All information on this form will be kept strictly confidential and will not be disclosed or released to your child or any other group or individual.

Conducted with the assistance of WESTAT, Inc. 1650 Research Blvd. Rockville, MD 20850
Call toll-free (800) 345-0723. In Maryland, call collect (301) 963-5456.

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

CENTER FOR EDUCATION STATISTICS

May 1987

Dear Parents:

Your child, whose name is on the front cover of this questionnaire, has been selected to participate in the National Postsecondary Student Aid Study. The U.S. Department of Education is concerned about these costs and how students and their families finance their education after high school. We realize that a great many students rely on some type of financial aid, but there is little information to answer such questions as: how much does it actually cost a family or a student to attend a postsecondary school; how much must a family borrow to have a child stay in school; and how great is the need for additional financial assistance. To answer these and other questions, the U.S. Department of Education is conducting the National Postsecondary Student Aid Study.

You have been selected as a participant in this very important national study through a scientifically designed sample selection process. Your participation as well as the participation of all other selected parents is absolutely essential to the success of the study. Without your help, the information provided by your child could give only a partial picture of how families pay for college costs. Your input will help us provide better advice to Congress on the problems and needs of students and families who are trying to pay for postsecondary education. The results of this study will have a significant impact on future Federal policy regarding student financial aid, so be sure the information you provide is complete and accurate.

We want to assure you that under Federal law all information provided on the enclosed questionnaire will be kept strictly confidential and cannot be disclosed or released to your child's school or any other group or individual. Nor will your responses in any way affect your child's participation in, or eligibility for, financial aid.

Please return your completed questionnaire in the enclosed pre-addressed postage-paid envelope as quickly as possible. If you need any assistance in completing the questionnaire, or if you have any questions about the study, please call our toll-free number (800) 345-0723. In Maryland, call collect (301) 963-5456.

We have enclosed a brief pamphlet about the study and a brochure that describes U.S. Department of Education Student Aid Programs. We hope you find these interesting and useful. Thank you for your cooperation and participation.

Sincerely,

Elliott

Emerson J. Elliott
Director

WASHINGTON, D.C. 20208

## GENERAL INSTRUCTIONS

**THE QUESTIONS ASKED IN THIS QUESTIONNAIRE REFER TO YOUR CHILD WHOSE NAME IS ON THE FRONT COVER OF THIS BOOKLET.**

1. There are three types of questions asked in this questionnaire. Please follow the instructions given below for each type.

   a. The first type of question requires that you write an answer in the space provided.

   **Example**: How many weeks did your child live at home with you?

   Calendar year 1985 12 weeks

   How much did your child earn in calendar year 1986?

   $ 2,000 .00

   b. The second type of question lists the possible answers and asks you to circle only one answer code.

   **Example**: Did you go to a movie last week?

   (CIRCLE ONE)

   Yes .................................................. [✓ 1]
   No .................................................. 2

   c. The third type of question lists the possible answers and asks you to circle all answer codes that apply.

   **Example**: Last week, did you do any of the following?

   (CIRCLE ALL THAT APPLY)

   See a play .......................................... 1
   Go to a movie ...................................... [✓ 1]
   Attend a sporting event ...................... [✓ 1]

**PLEASE NOTE**

2. The number of questions to be answered varies depending on your circumstances.

3. Please answer all questions in the order they appear on the questionnaire unless instructed otherwise. For some questions, the answer you provide will determine if you should answer the next question or skip to another question. The instructions to skip to another question are given in parentheses next to the answer. If an answer you provide has no skip instruction next to it, continue with the next question.

   **Example**: Did you save money to help finance your child's postsecondary education?

   (CIRCLE ONE)

   No savings at all ............................................ [✓ 1] —> (Please skip to Q10)
   Saved money, but it could be used for things other than education .............................. 2
   Saved money to be used only for education ... 3

   In the above example, if you circled code 2 or 3 (Saved money, but it could be used for things other than education or Saved money to be used only for education), you would go on to the next question. If you circled code 1 (No savings at all), you would skip to Question 10.

4. For each question pay special attention to the time period for which we are requesting information.

PLEASE READ EACH QUESTION CAREFULLY AND START WITH QUESTION 1.

## INFORMATION ABOUT YOUR FAMILY

1. How would you describe your family?

Single parent family ...................... 1
Two parent family ........................ 2

2. What is your current marital status?

(CIRCLE ONE)

Single, never married .................... 1
Married .......................................... 2
Separated ....................................... 3
Divorced ........................................ 4
Widowed ........................................ 5

3. What language is spoken most often in your home?

(CIRCLE ONE)

English .......................................... 1
Spanish .......................................... 2
Other (Specify ____________) ... 3

4. What is your and your spouse's race?

(CIRCLE ONE FOR EACH COLUMN)

| | You | Your Spouse |
|---|---|---|
| American Indian or Alaska Native ..... | 1 | 1 |
| Asian or Pacific Islander ..................... | 2 | 2 |
| Black ....................................................... | 3 | 3 |
| White ...................................................... | 4 | 4 |
| Other (Specify________________) ... | 5 | 5 |

5. What is your and your spouse's ethnic descent? (If more than one, please circle the one you consider the most important part of your background.)

(CIRCLE ONE FOR EACH COLUMN)

| | You | Your Spouse |
|---|---|---|
| Hispanic | | |
| Mexican, Mexican-American, Chicano | 01 | 01 |
| Cuban, Cubano | 02 | 02 |
| Puerto Rican, Puertorriqueno, or Boricua | 03 | 03 |
| Other (Specify ______) | 04 | 04 |
| Asian or Pacific Islander | | |
| Chinese | 05 | 05 |
| Filipino | 06 | 06 |
| Japanese | 07 | 07 |
| Korean | 08 | 08 |
| Southeast Asian (Vietnamese, Laotian, Cambodian/ Kampuchean, etc.) | 09 | 09 |
| Pacific Islander | 10 | 10 |
| Other (Specify ______) | 11 | 11 |
| Neither Hispanic nor Asian or Pacific Islander | 12 | 12 |

6. In what year were you born?

______
Year of Birth

7. In what year was your spouse born? (Enter 0 if no spouse.)

______
Spouse's Year of Birth

8. What is your relationship to the student named on the front cover?

| | (CIRCLE ONE) |
|---|---|
| Mother | 1 |
| Stepmother | 2 |
| Father | 3 |
| Stepfather | 4 |
| Grandmother | 5 |
| Grandfather | 6 |
| Other male relative or guardian | 7 |
| Other female relative or guardian | 8 |

## YOUR CHILD'S EDUCATION EXPENSES

The next set of questions refers to your child's education expenses for the 1986-1987 school year (September 1986 through May 1987). The questions refer to the child whose name appears on the front cover of this questionnaire. If he or she was not enrolled in school for this entire period, please answer the questions just for the months he or she was enrolled.

Note: The questions below refer to you and your spouse (if applicable). Also, if you do not know the exact amount, please provide your best estimate. (If none, enter $0.)

9. Your child's education-related expenses from September 1986 through May 1987

| | Amount |
|---|---|
| a. How much was paid to the school for tuition and fees? | $________.00 |
| b. How much was paid to the school for room and board? | $________.00 |
| c. How much were your child's books and supplies? | $________.00 |
| d. How much were your child's expenses (rent, food, personal, transportation, etc.) other than what was paid to the school or spent on books and supplies? Include only expenses that were directly related to his or her enrollment in school (i.e., expenses that your child had as a result of attending school). | $________.00 |

10. Did you or will you and your spouse contribute or lend your child any money to help pay for his or her 1986-1987 school year expenses listed in Question 9?

Yes .......... 1
No .......... 2 —> (Please skip to Q15)

11. How much money have you or will you and your spouse contribute to help meet these expenses? Please include all loans you have taken out for this purpose. If divorced, do not include ex-spouse's contribution. (If none, enter $0.)

$________.00

12. How much money did you or will you lend your child to help meet these expenses? Please include all loans you have taken out for this purpose. (If none, enter $0.)

$________.00

13. How did you get the money that you contributed or lent your child for living and school expenses for this school year?

| | | (CIRCLE ONE NUMBER FOR EACH ITEM) | |
|---|---|---|---|
| | | Yes | No |
| a. | Used money previously set aside for his or her education in our savings account(s) | 1 | 2 |
| b. | Used money previously set aside for his or her education in trust fund(s) or under the Uniform Gift to Minors Act | 1 | 2 |
| c. | Withdrew money not previously set aside for his or her education from our savings accounts, trust fund(s) | 1 | 2 |
| d. | Borrowed money on life insurance policies | 1 | 2 |
| e. | Took out a second mortgage on real estate | 1 | 2 |
| f. | Refinanced real estate | 1 | 2 |
| g. | Took out loans, other than mortgages | 1 | 2 |
| h. | I or my spouse started working, or if already working, took an additional job | 1 | 2 |
| i. | I or my spouse worked more hours per week at current job(s) | 1 | 2 |
| j. | Used current income (not from extra work) | 1 | 2 |
| k. | Sold assets (real estate, stocks, bonds) | 1 | 2 |
| l. | Used other source of funds | 1 | 2 |

(Specify ______________________________)

14. If you took out loans for your child's living and school expenses for this school year, what types were they? Write the amount of all loans in each category, or write "0" if you do not have any loans in that category.

| | | Total Amount |
|---|---|---|
| A. | Parent Loans to Undergraduate Student (PLUS) loan (Federal) .................. | $__________.00 |
| B. | Supplemental education loan .......................... | $__________.00 |
| C. | State-sponsored parent loan .......................... | $__________.00 |
| D. | School-sponsored parent loan ........................ | $__________.00 |
| E. | Signature loan .................................................. | $__________.00 |
| F. | Home equity loan ........................................... | $__________.00 |
| G. | Line of credit .................................................. | $__________.00 |
| H. | Loans against life insurance policy ............... | $__________.00 |
| I. | Other (Specify ____________________) ... | $__________.00 |

15. Besides any direct monetary support for school you may have provided your child during this period, did you and your spouse:

| | | (CIRCLE ONE FOR FOR EACH ITEM) Yes | No |
|---|---|---|---|
| a. | Help pay for your child's automobile or other transportation (auto loan, auto repairs, insurance, airplane or bus tickets, etc.) ................................ | 1 | 2 |
| b. | Provide your child with food at any time ............................... | 1 | 2 |
| c. | Provide your child with housing at any time .......................... | 1 | 2 |
| d. | Provide your child with the use of charge card(s) .................. | 1 | 2 |
| e. | Provide your child with clothing or other support ................. | 1 | 2 |

15a. How much money do you think this support was worth? That is, what would it have cost your child to purchase this support? (If none, enter $0.)

$__________.00

16. Of the total amount of your child's living and school expenses (Question 9), approximately how much will your child receive from the following sources? Do not include amounts previously reported. (If none, enter $0.)

a. Contributions or loans from a divorced or separated parent ................ $__________.00

b. Contributions or loans from other relatives and friends ...................... $__________.00

c. Student financial aid (Federal, State, school, private)

  1. Grants/scholarships .......................................................................... $__________.00

  2. Loans ............................................................................................ $__________.00

  3. Work-study ...................................................................................... $__________.00

d. Child's spouse, if applicable .................................................................. $__________.00

e. Your child's earnings while in school ...................................................... $__________.00

f. Your child's summer earnings ................................................................. $__________.00

g. Other sources (Specify ______________________________) ... $__________.00

17. Did you save money to help finance your child's postsecondary education?

(CIRCLE ONE)

No savings at all .................................................. 1 —> (Please skip to Q20)

Saved money, but it could be used for things other than education .............................. 2

Saved money to be used only for education ... 3

18. What grade was your child in when you began saving for his/her postsecondary education?

(CIRCLE ONE)

Before 1st grade .................................................. 1

In the 1st through 6th grades ........................... 2

In the 7th, 8th or 9th grades ............................ 3

In the 10th, 11th or 12th grades ...................... 4

After high school ............................................... 5

19. What type of savings plan did you establish?

(CIRCLE ALL THAT APPLY)

a. Savings account in my child's name .............................. 1

b. Assets in my child's name (certificate of deposit, money markets, etc.) .......................................... 1

c. Assets (including savings accounts) in my and/or my spouse's name ................................................ 1

d. Life insurance policy ....................................................... 1

e. Trust fund(s) for my child ................................................ 1

f. Other (Specify ________________________________) ... 1

## OTHER EDUCATION EXPENSES FOR YOUR FAMILY

20. How many people will you and your spouse (if applicable) support between September 1986 and May 1987? Include yourself, your spouse, other children and any others receiving more than half their support during that period from you and your spouse. Do not include your child who is in our survey.

Number ______________

a. Of these, how many have been or will be enrolled in postsecondary school (in college, university, trade or business school) at any time during September 1986 through May 1987? Please include your spouse, if applicable, but do not include yourself.

Number ______________

b. Will you be in postsecondary school at any point during this period?

(CIRCLE ONE)

Yes ............................................ 1
No ............................................. 2

c. Of the total number of persons in your family who were attending a postsecondary school during this period (including yourself, but not your child in our survey), how many took more than one course a term or attended for more than 20 hours per week?

Number ______________

21. The following items refer to your children in elementary or secondary school during this period.

Did you have any children in elementary or secondary school from September 1986 through May 1987?

Yes ............................................ 1
No ............................................. 2 —> (Please skip to Q22)

a. How many children do you have in elementary or secondary school during this period?

Number ______________

b. For how many of these children will you and your spouse pay tuition? If none, enter "0" and skip to Q22.

Number ______________

c. What will be the total amount of tuition and fees which you and your spouse will pay in the 1986-1987 school year for these children? (If none, enter $0.)

$____________.00

22. The following set of questions refers to all of your other children (other than the one in our survey) whether or not you provided them with any support. Did any of these other children attend a postsecondary school in the fall of 1986?

| | |
|---|---|
| Yes .................................................. | 1 |
| No .................................................... | 2 —> (Please skip to Q23) |

a. How many of your other children were attending postsecondary school in the fall of 1986?

Number ______________

b. For each of your other children, please write in the name and location of the school they were attending in the fall.

| | Child 1 | Child 2 | Child 3 |
|---|---|---|---|
| School Name | ______________ | ______________ | ______________ |
| | ______________ | ______________ | ______________ |
| City | ______________ | ______________ | ______________ |
| State | ______________ | ______________ | ______________ |

c. Did any of your other children have any financial aid (grant, loan, scholarship, fellowship, work study, etc.)?

| Child 1 | (Circle one) | Child 2 | (Circle one) | Child 3 | (Circle one) |
|---|---|---|---|---|---|
| Yes .................... | 1 | Yes ...................... | 1 | Yes ...................... | 1 |
| No ...................... | 2 | No ........................ | 2 | No ........................ | 2 |
| Don't know ....... | 3 | Don't know ........ | 3 | Don't know ........ | 3 |

d. Did you or will you claim any of these children as dependents on your 1986 Federal income tax return?

| Child 1 | (Circle one) | Child 2 | (Circle one) | Child 3 | (Circle one) |
|---|---|---|---|---|---|
| Yes .................... | 1 | Yes ...................... | 1 | Yes ...................... | 1 |
| No ...................... | 2 | No ........................ | 2 | No ........................ | 2 |

## YOUR FAMILY FINANCIAL CONDITION

The next set of questions asks about your family's sources and amounts of income. These questions are very important and your answers will help to evaluate the ability of families to finance postsecondary education. Let us assure you again that all information you provide will be kept strictly confidential.

The financial information requested here is the same as that requested on the Financial Aid Form (FAF) used by schools to determine financial aid amounts. If you completed the FAF for the 1986-1987 school year, you may find it helpful to refer to it. Otherwise, it may help to get your tax return for the tax year 1985. Please note that you should not refer to your tax return for the calendar year 1986 which you may have recently completed.

If the information requested is not available, please give us your best estimate. Enter "0" if a question does not apply to you. Remember: Questions 23 through 28 refer to tax year 1985. These questions refer to you and your spouse, if applicable.

23. What was your and your spouse's 1985 total number of Federal income tax exemptions in 1985? (IRS form 1040 - line 6e or form 1040A - line 5e; if you used 1040EZ, write in "1")?

Number ____________

24. What was your and your spouse's combined 1985 Federal adjusted gross income? (IRS form 1040 - line 32, form 1040A - line 14, or form 1040EZ - line 3)

$____________.00

25. What was your and your spouse's 1985 taxable Federal income? (IRS form 1040 - line 37, form 1040A - line 19, or form 1040EZ - line 7)

$____________.00

26. How much total 1985 Federal income taxes did you and your spouse pay? (IRS form 1040 - line 56, form 1040A - line 23, or form 1040EZ - line 9)?

$____________.00

---

### ONLY FOR FAMILIES THAT PAID TAXES TO NEW YORK STATE

27. What was your and your spouse's total 1985 NY State taxable income?

$____________.00

---

28. What was the amount of your and your spouse's untaxed income and benefits in 1985 for the following item? Please enter the amount received. (If none, enter $0.)

| | **YOURS** | **YOUR SPOUSE'S** |
|---|---|---|
| Social security benefits, Aid to Families with Dependent Children (AFDC or ADC); all other 1985 non-taxable income and benefits (child support, disability income, income from tax exempt bonds, untaxable portion of capital gains, housing allowances, untaxed portion of unemployment compensation, etc.) | $________.00 | $________.00 |

29. For your child participating in this survey:

a. How many weeks did your child live at home with you?

Calendar year 1985 __________ weeks

Calendar year 1986 __________ weeks

b. Did you or will you claim him/her as a tax exemption on your Federal income tax return

(CIRCLE ONE)

a. In 1985?
Yes .............................................. 1
No .............................................. 2

(CIRCLE ONE)

b. In 1986?
Yes .............................................. 1
No .............................................. 2

(CIRCLE ONE)

c. In 1987?
Yes .............................................. 1
No .............................................. 2

c. Did you provide your child with more than $750 (including value of transportation, food, housing, clothing, insurance, etc.) toward his/her support?

(CIRCLE ONE)

a. In 1985?
Yes .............................................. 1
No .............................................. 2

(CIRCLE ONE)

b. In 1986?
Yes .............................................. 1
No .............................................. 2

d. How much did your child earn in calendar year 1986? (If none, enter $0.)

$__________.00

30. Please give your best estimate of the value of your and/or your spouse's assets at the end of calendar year 1986. For debts, please give your best estimate of what was owed at the end of 1986, not what was originally borrowed. If you do not have any one of the assets listed, please enter "0" in the worth column.

| | What was it worth at the end of 1986? | What was owed on it at the end of 1986? |
|---|---|---|
| A. Principal residence (fair market value) (Renters enter in "0") | $________.00 | $________.00 |
| B. Cash, savings and checking accounts | $________.00 | |
| C. Business (fair market value) | $________.00 | $________.00 |
| D. Farm (fair market value) | $________.00 | $________.00 |
| E. Other residences | $________.00 | $________.00 |
| F. Other assets (jewelry, real estate and investments, stocks, bonds, retirement accounts [including IRA's], etc.) | $________.00 | $________.00 |
| G. Education debts for you and your children | | $________.00 |
| H. Other debts (consumer loans, credit card debts, etc.) | | $________.00 |

31. What were your average monthly living expenses? What do you currently spend each month for each of the following expenses? For those items which you do not pay on a monthly basis, please prorate. If you do not spend anything for a particular item, please enter "0" in the space provided.

| | | **Amount** |
|---|---|---|
| A. | Rent/mortgage payment (including property taxes) | $________.00 |
| B. | Utilities | $________.00 |
| C. | Food (including meals at restaurants) | $________.00 |
| D. | Child care (day care, baby sitting, etc.) | $________.00 |
| E. | Personal expenses (including clothing, recreation, vacation trips, etc.) | $________.00 |
| F. | Transportation (including automobile loan payments, auto service, public transportation, commuting costs, etc.) | $________.00 |
| G. | Repayment of your and/or your spouse's education loans | $________.00 |
| H. | Repayment of education loans obtained for your children's education | $________.00 |
| I. | Repayment of all other monthly expenses (insurance, medical, other loans, etc.) | $________.00 |

## YOUR EMPLOYMENT AND EDUCATION

The following questions refer to your and your spouse's (if applicable) current or most recent employment. If you had more than one job, please respond for the job in which you earn the most money.

32. **Your Employment**

a. Are you currently employed?

Yes ................. 1

No .................. 2

b. What kind of job or occupation do you have or did you have most recently (salesperson, executive, teacher, physician, technician, secretary, assembler, etc.)? (Write in.)

Occupation: ____________________________________

c. In what kind of business or industry is or was this job? (For example, retail shoe store, manufacturing plant, restaurant, hospital, government, etc.) (Write in.)

Business or Industry: ______________________________

33. **Your Spouse's Employment**

a. Is your spouse currently employed?

Yes ................. 1

No .................. 2

b. What kind of job or occupation does or did your spouse have most recently (salesperson, executive, teacher, physician, technician, secretary, assembler, etc.)? (Write in.)

Occupation: ____________________________________

c. In what kind of business or industry is or was this job? (For example, retail shoe store, manufacturing plant, restaurant, hospital, government, etc.) (Write in.)

Business or Industry: ______________________________

34. During calendar year 1986, how many weeks were you and/or your spouse not employed?

|  | You | Your Spouse |
|---|---|---|
| Number of weeks | ________ | ________ |

35. In calendar year 1986, what was your and your spouse's total income (before withholding) from all jobs?

|  | You | Your Spouse |
|---|---|---|
| Total 1986 income | $________.00 | $________.00 |

36. What is the highest level of education you and your spouse have completed?

(CIRCLE ONE FOR EACH COLUMN)

|  | You | Your Spouse |
|---|---|---|
| A. Less than high school diploma | 01 | 01 |
| B. GED | 02 | 02 |
| C. High school graduation | 03 | 03 |
| D. Vocational, trade or business school after high school |  |  |
| Less than 1 year | 04 | 04 |
| 1 but less than 2 years | 05 | 05 |
| 2 years or more | 06 | 06 |
| E. College or university |  |  |
| Less than 2 years of college | 07 | 07 |
| 2 or more years of college (including 2-year degree) | 08 | 08 |
| Completed college (4- or 5-year degree) | 09 | 09 |
| Master's degree or equivalent | 10 | 10 |
| Ph.D., M.D., or other advanced professional degree | 11 | 11 |

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37. If you or your spouse ever attended any postsecondary school, how did you pay for it?

If neither of you attended a postsecondary school, please skip to Q38.

(CIRCLE ALL THAT APPLY IN EACH COLUMN)

| | | You | Your Spouse |
|---|---|---|---|
| a. | Paid for with own earnings or savings ............ | 1 | 1 |
| b. | Paid for with loan(s) ........................................ | 1 | 1 |
| c. | Paid for with spouse's earnings........................ | 1 | 1 |
| d. | Paid for by parents ........................................ | 1 | 1 |
| e. | Paid for by employer ...................................... | 1 | 1 |
| f. | G.I. Bill ............................................................ | 1 | 1 |
| g. | Paid for with a scholarship or grant ................ | 1 | 1 |
| h. | Other (Specify ________________________) ... | 1 | 1 |

38. Has your child ever applied for financial aid (grant, scholarship, fellowship, loan, work-study) for his/her education beyond high school?

| | | |
|---|---|---|
| Yes ................................................ | 1 | —> (Please skip to Q40) |
| No .................................................... | 2 | |
| Don't Know .................................. | 3 | —> (Please skip to Q40) |

39. If your child has never applied for financial aid, what were some of the reasons?

| | | Very Important | Somewhat Important | Not Important |
|---|---|---|---|---|
| a. | Our family and our child could pay for his/her education | 1 | 2 | 3 |
| b. | Neither we nor our child were willing to go into debt for schooling | 1 | 2 | 3 |
| c. | Family income was too high to qualify for a loan or scholarship | 1 | 2 | 3 |
| d. | Our child's grades and/or test scores were not high enough to qualify for a loan or scholarship | 1 | 2 | 3 |
| e. | It was too hard to apply for financial aid | 1 | 2 | 3 |
| f. | Neither we nor our child wished to disclose our financial situation | 1 | 2 | 3 |
| g. | Our child was not eligible because he/she only attends school part-time | 1 | 2 | 3 |
| h. | No money was available for aid | 1 | 2 | 3 |
| i. | We missed the deadline for application | 1 | 2 | 3 |

For your child in our survey, please answer the following general questions about his/her education after high school.

40. Why did your child decide to enter the school he/she was attending in the fall, 1986?

| | | (CIRCLE ALL THAT APPLY) |
|---|---|---|
| a. | The school had a good reputation | 1 |
| b. | My child obtained the financial aid he/she needed at the school | 1 |
| c. | The school offered the course of study my child wanted | 1 |
| d. | I and/or my spouse wanted our child to attend the school | 1 |
| e. | My child had a better chance to get a job at the school | 1 |
| f. | Tuition and other direct school expenses were less at the school than at other schools | 1 |
| g. | Other living costs were less than at other schools | 1 |
| h. | My child's friends attended the school | 1 |
| i. | The school was close to my home | 1 |
| j. | My child could work while attending the school | 1 |
| k. | My child could live at home | 1 |
| l. | The school was far away from my home | 1 |
| m. | The school had a good reputation for placing graduates | 1 |

41. How did finances affect your child's choice of course of study?

| | | (CIRCLE ONE FOR EACH ITEM) | |
|---|---|---|---|
| | | Yes | No |
| a. | My child's course of study was not affected by finances | 1 | 2 |
| b. | My child chose a course of study that would help to get a job quickly | 1 | 2 |
| c. | My child chose courses that would offer a better chance to earn a high income over his/her lifetime | 1 | 2 |
| d. | My child changed his/her choice of career due to the need of repaying a loan | 1 | 2 |
| e. | My child did not complete his/her degree because of the high cost of school | 1 | 2 |
| f. | My child pursued a less advanced degree than he/she would have because of the cost of school | 1 | 2 |

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All information on this form will be kept strictly confidential.

Please return the complete booklet in the enclosed postage-paid envelope.

**THANK YOU FOR YOUR COOPERATION**

OMB No. 1850-0585
Expiration Date: 12/87

# U.S. DEPARTMENT OF EDUCATON OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

## CENTER FOR EDUCATION STATISTICS

# NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

### TELEPHONE FOLLOWUP QUESTIONNAIRE
### PARENT SURVEY

**Parent ID#:** ____________ **Phone Number** (____) ____________

**Parent/Guardian Name:** ____________________________

**Interviewer Name:** ____________________ **Date** ____________

Westat, Inc.
August 1987

## SECTION A

## STUDENT'S EDUCATION EXPENSES

A1. What is your relationship to (SAMPLE STUDENT)?

| | | |
|---|---|---|
| MOTHER | 01 | |
| STEPMOTHER | 02 | |
| FATHER | 03 | |
| STEPFATHER | 04 | |
| GRANDMOTHER | 05 | |
| GRANDFATHER | 06 | |
| SPOUSE | 07 | (BOX 1) |
| OTHER MALE RELATIVE OR GUARDIAN | 08 | |
| OTHER FEMALE RELATIVE OR GUARDIAN | 09 | |
| NONE OF THE ABOVE (SPECIFY) ______________________ | 10 | (BOX 1) |

BOX 1

THANK R AND EXPLAIN WE ARE ONLY TALKING TO THE PARENT/GUARDIAN OF THE STUDENT. IF THE R KNOWS THE STUDENT'S PARENT OR GUARDIAN NAME AND/OR LOCATION, BE SURE TO RECORD THE INFORMATION ON THE RESPONDENT INFORMATION SHEET. DID YOU OBTAIN THE PARENT'S NAME AND LOCATION?

| | | |
|---|---|---|
| YES | 1 | (CODE CASE 9) |
| NO | 2 | (CODE CASE S3) |

A2. Are you currently ...

| | |
|---|---|
| Married, | 1 |
| Separated, | 2 |
| Divorced, | 3 |
| Widowed, or | 4 |
| Single, never married? | 5 |

IF R IS CURRENTLY MARRIED, ALL SUBSEQUENT QUESTIONS REFER TO R AND SPOUSE, OTHERWISE, ALL QUESTIONS REFER TO R ONLY.

The first few questions ask about (SAMPLE STUDENT'S) education expenses for the 1986-1987 school year; that is, from September 1986 through May 1987. If (SAMPLE STUDENT) was not enrolled in school during this entire period, please answer the questions for the months (she/he) was enrolled.

|  |  | AMOUNT |
|---|---|---|
| A3. | How much was paid to the school for (SAMPLE STUDENT'S) tuition and fees? ............................................ | $_____________.00 |
| A4. | How much was paid to the school for (SAMPLE STUDENT'S) room and board? ............................................ | $_____________.00 |
| A5. | How much were (SAMPLE STUDENT'S) books and supplies? ............ | $_____________.00 |
| A6. | Excluding what was paid to the school and expenses for books and supplies, how much were (SAMPLE STUDENT'S) other expenses for such items as rent, food, personal transportation, etc.? Please include only expenses that were directly related to his or her enrollment in school (i.e., expenses that (SAMPLE STUDENT) had as a result of attending school). ............................................ | $_____________.00 |

A7. Did you (and your spouse) contribute or lend (SAMPLE STUDENT) any money to help pay for any of these 1986-1987 school year expenses?

YES ........................................ 1
NO ........................................ 2 (A12)

A8. How much money have you (and your spouse) contributed to help meet these expenses? Please include all loans you have taken out for this purpose. (If divorced, do not include ex-spouse's contribution.)

NONE ........................................ 0

$_______________.00

A9. How much money did you (and your spouse) lend to (SAMPLE STUDENT) to help meet these expenses? Please include all loans you have taken out for this purpose.

NONE ........................................ 0

$_______________.00

A10. In order to contribute or lend (SAMPLE STUDENT) money for his/her 1986-1987 school year living and school expenses, did you (and your spouse) . . .

| | | YES | NO |
|---|---|---|---|
| a. | Use money that was previously set aside for his or her education in savings account(s)? | 1 | 2 |
| b. | Use money that was previously set aside for his or her education in trust fund(s) or under the Uniform Gift to Minors Act? | 1 | 2 |
| c. | Withdraw money that was not previously set aside for his or her education from savings accounts, trust funds(s)? | 1 | 2 |
| d. | Borrow money on life insurance policies? | 1 | 2 |
| e. | Take out loans, other than mortgages? | 1 | 2 |
| f. | Take out a second mortgage on real estate? | 1 | 2 |
| g. | Refinance any real estate? | 1 | 2 |
| h. | Start working, or if you were already working, take an additional job? | 1 | 2 |
| i. | Work more hours per week at current job(s)? | 1 | 2 |
| j. | Use current income (not from extra work)? | 1 | 2 |
| k. | Sell assets (real estate, stocks, bonds)? | 1 | 2 |
| l. | Use some other source of funds? | 1 | 2 |

(SPECIFY ____________________________________________)

A11. I'm going to read you a list of different types of loans. As I read each one please tell me if you (and your spouse) obtained such a loan for (SAMPLE STUDENT'S) 1986-1987 school expenses.

| | | YES | | How much was the (LOAN TYPE)? | NO |
|---|---|---|---|---|---|
| a. | Parent Loans to Undergraduate Student (PLUS) loan (Federal)? ................. | 1 | —> | $____________.00 | 2 |
| b. | Supplemental education loan? ........... | 1 | —> | $____________.00 | 2 |
| c. | State-sponsored parent loan? ........... | 1 | —> | $____________.00 | 2 |
| d. | School-sponsored parent loan? .......... | 1 | —> | $____________.00 | 2 |
| e. | Signature loan? | 1 | —> | $____________.00 | 2 |
| f. | Home equity loan? | 1 | —> | $____________.00 | 2 |
| g. | Line of credit? | 1 | —> | $____________.00 | 2 |
| h. | Loans against life insurance policy? ... | 1 | —> | $____________.00 | 2 |
| i. | Other (Specify ________________)? .... | 1 | —> | $____________.00 | 2 |

A12. During the 1986-1987 school year, did you (and your spouse) . . .

| | | YES | NO |
|---|---|---|---|
| a. | Help pay for (SAMPLE STUDENT'S) automobile or other transportation costs (auto loan, auto repairs, insurance, airplane or bus tickets, etc.)? ...................................... | 1 | 2 |
| b. | Provide (SAMPLE STUDENT) with food at any time? ...................... | 1 | 2 |
| c. | Provide (SAMPLE STUDENT) with housing at any time? ................... | 1 | 2 |
| d. | Provide (SAMPLE STUDENT) with the use of charge card(s)? ............. | 1 | 2 |
| e. | Provide (SAMPLE STUDENT) with clothing or other support? ............. | 1 | 2 |

IF ALL "NO", SKIP TO A14;
OTHERWISE, CONTINUE WITH A13.

A13. How much money do you think this support was worth during the 1986-1987 school year; that is, what would it have cost (SAMPLE STUDENT) to purchase this support?

$________________.00

A14. Were any of (SAMPLE STUDENT'S) living and school expenses for the 1986-1987 school year, funded by . . . (DO NOT INCLUDE AMOUNTS PREVIOUSLY REPORTED)

| | YES | —> | How much was received from (SOURCE)? | NO | DK |
|---|---|---|---|---|---|
| a. contributions or loans from a divorced or separated parent? .................. | 1 | —> | $__________.00 | 2 | 8 |
| b. contributions or loans from other relatives and friends? ................. | 1 | —> | $__________.00 | 2 | 8 |

A15. Now think about all of (SAMPLE STUDENT'S) postsecondary education needs, not just the 1986-1987 school year, did you save money to help finance (SAMPLE STUDENT'S) postsecondary education?

YES ...................................... 1
NO ....................................... 2 (A19)

A16. Was this money to be used only for (SAMPLE STUDENT'S) education or could it be used for things other than education?

ONLY FOR EDUCATION ....................... 1
COULD BE USED FOR THINGS OTHER
THAN EDUCATION .......................... 2

A17. What grade was (SAMPLE STUDENT) in when you began to save for his/her postsecondary education?

BEFORE 1ST GRADE ......................... 1
1ST - 6TH GRADE .......................... 2
7TH - 9TH GRADE .......................... 3
10TH - 12TH GRADE ........................ 4
AFTER HIGH SCHOOL ........................ 5

A18. What type savings plan did you estblish, was it . . .

| | | YES | NO |
|---|---|---|---|
| a. | a savings account in (SAMPLE STUDENT'S) name? ........................ | 1 | 2 |
| b. | assets in (SAMPLE STUDENT'S) name (certificate of deposit, money markets, etc.)? ........................ | 1 | 2 |
| c. | assets (including savings accounts) in your (and/or your spouse's) name? ........................ | 1 | 2 |
| d. | a life insurance policy? ........................ | 1 | 2 |
| e. | a trust fund(s) for (SAMPLE STUDENT)? ........................ | 1 | 2 |
| f. | something else? (SPECIFY ______________________) .... | 1 | 2 |

A19. How many weeks did (SAMPLE STUDENT) live at home with you during . . .

| | WEEKS |
|---|---|
| calendar year 1985? | ____________ |
| calendar year 1986? | ____________ |

A20. (Did/Will) you claim (SAMPLE STUDENT) as a tax exemption on your Federal income tax return . . .

| | YES | NO |
|---|---|---|
| a. in 1985? | 1 | 2 |
| b. in 1986? | 1 | 2 |
| c. in 1987? | 1 | 2 |

A21. Did you provide (SAMPLE STUDENT) with more than $750 (including value of transportation, food, housing, clothing, insurance, etc.) toward his/her support . . .

| | YES | NO |
|---|---|---|
| a. in 1985? | 1 | 2 |
| b. in 1986? | 1 | 2 |

## SECTION B

## OTHER FAMILY EDUCATION EXPENSES

The next few questions ask about your (and your spouse's) dependents.

B1. First, how many people did you (and your spouse) support from September 1986 through May 1987? Please include yourself, your spouse, other children and any others receiving more than half their support during that period from you (and your spouse) but do not include (SAMPLE STUDENT) in your answer.

NONE ........................................ 0 (B5)

NUMBER ______________________________ (B2)

B2. Of the (NUMBER FROM B1), how many were enrolled in a postsecondary school such as a college, university, trade or business school at any time from September 1986 through May 1987?

NONE ........................................ 0 (B5)

NUMBER ______________________________

B3. Of the (NUMBER FROM B2), how many took more than one course a term or attended for more than 20 hours per week?

NONE ........................................ 0

NUMBER ______________________________

B4. Were you enrolled in a postsecondary school at any point during this period?

YES ........................................ 1
NO ........................................ 2

B5. Did you (and your spouse) have any children in elementary or secondary school from September 1986 through May 1987?

YES ........................................ 1
NO ........................................ 2 (C1)

B6. How many children did you (and your spouse) have in elementary or secondary school during that period?

ONE ........................................ 1 (B7)

MORE THAN ONE ______________________ (B8)
NUMBER

B7. Did you (and your spouse) pay tuition for this child?

YES ........................................ 1 (B9)
NO ........................................ 2 (C1)

B8. For how many of these children did you (and your spouse) pay tuition?

NONE ........................................ 0 (C1)

NUMBER ______________________ (B9)

B9. What was the total amount of tuition and fees that you (and your spouse) paid in the 1986-1987 school year for (this child/these children)?

$______________________.00

## SECTION C

## INCOME AND EXPENSES

ASK C1 THROUGH C5 IN TURN
FOR R AND SPOUSE

| | RESPONDENT | SPOUSE |
|---|---|---|
| C1. What kind of job or occupation (do you/does your spouse) have or did (you/your spouse) have most recently? (For example, salesperson, executive, teacher, physician, technician, secretary, assembler.) | | |
| C2. In what kind of business or industry is or was this job? (For example, a retail shoe store, manufacturing plant, restaurant, hospital, government.) | | |
| C3. (Are you/Is your spouse) currently employed? | YES ............ 1<br>NO ............. 2 (C5) | YES ............ 1<br>NO ............. 2 (C5) |
| C4. During calendar year 1986, were there any weeks when (you were/your spouse was) NOT employed? | YES ............ 1<br>NO ............. 2 (BOX 2) | YES ............ 1<br>NO ............. 2 (C6) |
| C5. During calendar year 1986, how many weeks (were you/was your spouse) not employed? | ______________<br>WEEKS | ______________<br>WEEKS |

BOX 2

IF R IS NOT CURRENTLY MARRIED, CONTINUE WITH C6; OTHERWISE, ASK C1-C5 FOR SPOUSE.

The next few questions ask about your family's sources and amounts of income. These questions are very important and your answers will help to evaluate the ability of families to finance (pay for) postsecondary education. Let us assure you that all information you provide will be kept strictly confidential.

C6. In calendar year 1986, approximately what was your total income before withholdings from all jobs?

$____________________.00 (BOX 3)
INCOME
DON'T KNOW ............. 8 (C9)

BOX 3

IS R CURRENTLY MARRIED?

| | |
|---|---|
| YES | 1 (C7) |
| NO | 2 (C10) |

C7. Approximately, what was your spouse's total income for calendar year 1986 before withholdings, from all jobs?

$____________________.00 (C10)
INCOME
DON'T KNOW ............. 8 (C8)

C8. Would you estimate your spouse's total income was ...

| | | |
|---|---|---|
| less than $12,000, | 1 | (C10) |
| $12,000-$23,999, | 2 | (C10) |
| $24,000-$29,999, | 3 | (C10) |
| $30,000-$49,999, | 4 | (C10) |
| $50,000-$74,999, | 5 | (C10) |
| $75,000-$99,999, | 6 | (C10) |
| $100,000 or more? | 7 | (C10) |
| DON'T KNOW | 8 | (C10) |

C9. Would you estimate your (and your spouse's) total yearly income from all jobs as ...

| | |
|---|---|
| less than $12,000, | 1 |
| $12,000-$23,999, | 2 |
| $24,000-$29,999, | 3 |
| $30,000-$49,999, | 4 |
| $50,000-$74,999, | 5 |
| $75,000-$99,999, | 6 |
| $100,000 or more? | 7 |
| DON'T KNOW | 8 |

C10. What are your average monthly living expenses; that is, approximately what do you spend each month for such items as rent/mortgage, utilities, food, child care, clothing, personal expenses, transportation, repayment of loans, etc?

$________________.00 (C14)
AVERAGE MONTHLY EXPENSE

| | | |
|---|---|---|
| DON'T KNOW | 8 | (C11) |

C11. Would you estimate your average monthly living expenses to be less than $1500, or $1500 or more?

| | | |
|---|---|---|
| LESS THAN $1500 | 1 | (C12) |
| $1500 OR MORE | 2 | (C13) |
| DON'T KNOW | 8 | (C14) |

C12. Would you estimate your average monthly living expenses to be ...

| | | |
|---|---|---|
| less than $500, | 1 | (C14) |
| from $500 to $999, | 2 | (C14) |
| or $1000 or more? | 3 | (C14) |
| DON'T KNOW | 8 | (C14) |

C13. Would you estimate your average monthly living expenses to be ...

| | |
|---|---|
| $1500 to $1999, | 1 |
| from $2000 to $2499, | 2 |
| or $2500 or more? | 3 |
| DON'T KNOW | 8 |

C14. Do you (and your spouse) . . .

| | YES | | C15. What is your best estimate of what it was worth at the end of 1986? (fair market value) | | C16. What was owed on it at the end of 1986? | NO |
|---|---|---|---|---|---|---|
| a. own your principle place of residence? .......... | 1 | —> | $__________.00 | —> | $__________.00 | 2 |
| b. own any other residences? ......... | 1 | —> | $__________.00 | —> | $__________.00 | 2 |
| c. own a business? ..... | 1 | —> | $__________.00 | —> | $__________.00 | 2 |
| d. own a farm? ......... | 1 | —> | $__________.00 | —> | $__________.00 | 2 |
| e. have other assets such as jewelry, real estate and investments, stocks, bonds, retirement accounts, IRAs, etc.? ............... | 1 | —> | $__________.00 | —> | $__________.00 | 2 |

C17. At the end of 1986 did you (and your spouse) have any education debts for you and your children?

| | | |
|---|---|---|
| YES ........................................ | 1 | |
| NO ......................................... | 2 | (C19) |

C18. Approximately, how much was owed on debts for education at the end of 1986?

$________________.00

C19. Approximately, how much did you (and your spouse) owe on other debt at the end of 1986? (Consumer loans, credit card debt, etc.).

$________________.00

C20. Approximately, how much money did you (and your spouse) have in cash, savings and checking accounts at the end of 1986?

$________________.00

C21. My next few questions ask for information from your 1985 Federal tax return. What was your (and your spouse's) . . .

[IF NEEDED, REMIND RESPONDENT OF CONFIDENTIALITY. 1985 TAXES WERE DUE A YEAR AGO APRIL 1986.]

a. 1985 total number of Federal tax exemptions?
IRS 1040 - LINE 6e
IRS 1040 A - LINE 5e
IRS 1040EZ - (MUST BE 1)

______________ NUMBER

AMOUNT

b. 1985 Federal adjusted gross income?
IRS 1040 - LINE 32
IRS 1040 A - LINE 14
IRS 1040EZ - LINE 3

$______________.00 (d)
DON'T KNOW .......... 8(c)

c. Would you estimate it was ...

| | |
|---|---|
| $12,000 or less, ...... | 1 |
| $20,000-$23,999, ...... | 2 |
| $24,000-$29,999, ...... | 3 |
| $30,000-$49,999, ...... | 4 |
| $50,000-$74,999, ...... | 5 |
| $75,000-$99,999, ...... | 6 |
| or $100,000 or more? .. | 7 |
| DON'T KNOW ............ | 8 |

d. 1985 Federal taxable income?
IRS 1040 - LINE 37
IRS 1040 A - LINE 19
IRS 1040EZ - LINE 7

$______________.00

e. 1985 Federal income tax, that is, how much was paid?
IRS 1040 - LINE 56
IRS 1040 A - LINE 23
IRS 1040EZ - LINE 9

$______________.00

f. 1985 NY State taxable income?

NOT FROM NY ...... 1

$______________.00

C22. In 1985 did you (or your spouse) receive any untaxed income or benefits? These may include such items as:

- Social Security benefits
- Aid to Families with Dependent Children
- disability income
- child support
- income from tax exempt bonds
- untaxed portion of capital gains
- housing allowances
- untaxed portion of unemployment compensation, etc.

YES ........................................ 1
NO ........................................ 2 (D1)

C23. Approximately what was the amount of your untaxed income and benefits in 1985? Your spouse's?

RESPONDENT $________________.00

SPOUSE $________________.00

## SECTION D

## DEMOGRAPHICS

ASK EACH COLUMN IN TURN FOR R AND SPOUSE

| | RESPONDENT | SPOUSE |
|---|---|---|
| D1. (Are you/Is your spouse) . . . | | |
| White, | 1 | 1 |
| Black, | 2 | 2 |
| American Indian or Alaska Native, | 3 | 3 |
| Asian or Pacific Islander? | 4 | 4 |
| OTHER, SPECIFY | ____________ 5 | ____________ 5 |
| D2. (Are you/Is your spouse) Hispanic? | YES 1<br>NO 2 | YES 1<br>NO 2 |
| D3. In what year (were you/was your spouse) born? | ____________<br>YEAR | ____________<br>YEAR |
| D4. What is the highest level of education (you have/your spouse has) completed? | | |
| LESS THAN HIGH SCHOOL DIPLOMA | 01 | 01 |
| GED | 02 | 02 |
| HIGH SCHOOL GRADUATION | 03 | 03 |
| VOCATIONAL, TRADE OR BUSINESS SCHOOL AFTER HIGH SCHOOL | | |
| LESS THAN 1 YEAR | 04 | 04 |
| 1 BUT LESS THAN 2 YEARS | 05 | 05 |
| 2 YEARS OR MORE | 06 | 06 |
| COLLEGE OR UNIVERSITY | | |
| LESS THAN 2 YEARS OF COLLEGE | 07 | 07 |
| 2 OR MORE YEARS OF COLLEGE (INCLUDING 2-YEAR DEGREE) | 08 | 08 |
| COMPLETED COLLEGE (4- OR 5-YEAR DEGREE) | 09 | 09 |
| MASTER'S DEGREE OR EQUIVALENT | 10 | 10 |
| PH.D., M.D., OR OTHER ADVANCED PROFESSIONAL DEGREE | 11 | 11 |
| | | SKIP TO D6 |

IF R IS NOT CURRENTLY MARRIED, CONTINUE WITH D5; OTHERWISE, ASK D1-D4 FOR SPOUSE.

---

D5. Do you consider your family to be a single parent or two parent family?

| | |
|---|---|
| SINGLE ............ | 1 |
| TWO PARENT ........ | 2 |

---

D6. What language is spoken most often in your home?

| | |
|---|---|
| ENGLISH .................................... | 1 |
| SPANISH .................................... | 2 |
| OTHER (SPECIFY ____________________) .... | 3 |

## SECTION E

## CHOICE QUESTIONS

E1. Has (SAMPLE STUDENT) ever applied for financial aid such as a grant, scholarship, fellowship, loan or work study program for (his/her) education beyond high school?

| | | |
|---|---|---|
| YES | 1 | (E3) |
| NO | 2 | (E2) |
| DON'T KNOW | 3 | (E3) |

E2. I'm going to read a list of statements that describe reasons why some students do not apply for aid.

As I read each one, please tell me if the reason was very important, somewhat important, or not important to (SAMPLE STUDENT) in deciding not to apply for aid.

Consider the statement [INSERT STATEMENT CHECKED], was this very important, somewhat important, or not important to (SAMPLE STUDENT) in deciding not to apply for aid?

What about [INSERT NEXT STATEMENT], was it very important, somewhat important, or not important to (SAMPLE STUDENT) ...

ASK ABOUT EACH STATEMENT IN ORDER,
STARTING WITH THE STATEMENT CHECKED.

| START WITH | | | VERY IMPORTANT | SOMEWHAT IMPORTANT | NOT IMPORTANT |
|---|---|---|---|---|---|
| ___ | a. | Our family and (SAMPLE STUDENT) could pay for his/her education | 1 | 2 | 3 |
| ___ | b. | Neither we nor (SAMPLE STUDENT) were willing to go into debt for schooling | 1 | 2 | 3 |
| ___ | c. | Family income was too high to qualify for a loan or scholarship | 1 | 2 | 3 |
| ___ | d. | (SAMPLE STUDENT'S) grades and/or test scores were not high enough to qualify for a loan or scholarship | 1 | 2 | 3 |
| ___ | e. | It was too hard to apply for financial aid | 1 | 2 | 3 |
| ___ | f. | Neither we nor (SAMPLE STUDENT) wished to disclose our financial situation | 1 | 2 | 3 |
| ___ | g. | (SAMPLE STUDENT) was not eligible because he/she only attends school part-time | 1 | 2 | 3 |
| ___ | h. | No money was available for aid | 1 | 2 | 3 |
| ___ | i. | We missed the deadline for application | 1 | 2 | 3 |

E3. Next, I'm going to read a list of statements that describe reasons why some students selected the school they chose to attend.

As I read each one, please tell me if any of the following helped (SAMPLE STUDENT) decide to enter the school (he/she) attended last fall.

Consider the statement [INSERT STATEMENT CHECKED], did this help (SAMPLE STUDENT) in deciding upon the school (he/she) attended last fall?

What about [INSERT NEXT STATEMENT], was this a factor in (SAMPLE STUDENT'S) ...

ASK ABOUT EACH STATEMENT IN ORDER, STARTING WITH THE STATEMENT CHECKED.

| START WITH | | | YES | NO |
|---|---|---|---|---|
| ___ | a. | The school had a good reputation ................................ | 1 | 2 |
| ___ | b. | (SAMPLE STUDENT) obtained the financial aid needed at the school ........................................... | 1 | 2 |
| ___ | c. | The school offered the course of study (SAMPLE STUDENT) wanted ........................................ | 1 | 2 |
| ___ | d. | You (and/or your spouse) wanted (SAMPLE STUDENT) to attend the school .......................................... | 1 | 2 |
| ___ | e. | (SAMPLE STUDENT) had a better chance to get a job at the school .............................................. | 1 | 2 |
| ___ | f. | (SAMPLE STUDENT'S) tuition and other direct school expenses were less at the school than at other schools ............................................... | 1 | 2 |
| ___ | g. | (SAMPLE STUDENT'S) other living costs at the school were less than at other schools .......................... | 1 | 2 |
| ___ | h. | (SAMPLE STUDENT'S) friends attended the school .................. | 1 | 2 |
| ___ | i. | The school was close to (SAMPLE STUDENT'S) home ................. | 1 | 2 |
| ___ | j. | (SAMPLE STUDENT) could work while attending the school ..................................................... | 1 | 2 |
| ___ | k. | (SAMPLE STUDENT) could live at home ............................. | 1 | 2 |
| ___ | l. | The school was far away from (SAMPLE STUDENT'S) home ......................................................... | 1 | 2 |
| ___ | m. | The school had a good reputation for placing its graduates ................................................... | 1 | 2 |

E4. I am going to read a list of statements that describes how finances may affect a student's choice of a course of study. As I read each one please tell me if it was a factor in (SAMPLE STUDENT'S) choice of a course of study.

ASK ABOUT EACH STATEMENT IN ORDER,
STARTING WITH THE STATEMENT CHECKED.

| START WITH | | | YES | NO |
|---|---|---|---|---|
| ___ | a. | (SAMPLE STUDENT) chose a course of study that would help him/her get a job quickly ............................. | 1 | 2 |
| ___ | b. | (SAMPLE STUDENT) chose courses that would offer a better chance to earn a high income over his/her lifetime ........................................................ | 1 | 2 |
| ___ | c. | (SAMPLE STUDENT) changed his/her choice of career due to the need of repaying a loan ............................... | 1 | 2 |
| ___ | d. | (SAMPLE STUDENT) did not complete his/her degree because of the high cost of school ............................... | 1 | 2 |
| ___ | e. | (SAMPLE STUDENT'S) pursued a less advanced degree than he/she would have because of the cost of school ............. | 1 | 2 |
| ALWAYS READ LAST: | | | | |
| | f. | (SAMPLE STUDENT'S) course of study was not affected by finances ............................................ | 1 | 2 |

CLOSING

Thank you very much. That answered all my questions. We appreciate your cooperation.

OMB No. 1850-0585
Expiration Date: 12/87

# U.S. DEPARTMENT OF EDUCATON
# OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

## CENTER FOR EDUCATION STATISTICS

# NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS)

## TELEPHONE FOLLOWUP QUESTIONNAIRE PROMPT
## PARENT SURVEY

**Parent ID#:** ______________________ **Phone Number** (_____) ______________________

**Parent/Guardian Name:** ______________________________________________

**Interviewer Name:** ________________________________ **Date** ______________

Westat, Inc.
August 1987

## PART 1

## ASK TO SPEAK WITH PARENT/GUARDIAN IDENTIFIED ON THE RESPONDENT INFORMATION SHEET

Hello, my name is _____________, and I'm calling on behalf of the U.S. Department of Education which is sponsoring the National Postsecondary Student Aid Study. We recently sent you a copy of this questionnaire.

Have you had a chance to complete and mail it back?

| | | |
|---|---|---|
| YES, MAILED BACK .................. | 1 | (PART 2) |
| NO, NOT MAILED BACK ......... | 2 | (PART 3) |
| NO, NOT RECEIVED ................ | 3 | (PART 3) |

## PART 2

## PARENT/GUARDIAN HAS MAILED SURVEY BACK TO WESTAT

Approximately when did you mail the questionnaire?

DATE ____________________

Thank you very much. Your responses are very important to the outcome of the survey.

TERMINATE (CODE CASE AN S1 ON CALL RECORD)

## PART 3

## PARENT/GUARDIAN HAS NOT MAILED SURVEY BACK TO WESTAT OR HAS NOT RECEIVED SURVEY

A. First let me tell you about the survey. As I mentioned, it is being sponsored by the United States Department of Education and it is designed to assess how parents or guardians of students meet the costs of postsecondary education, how financial aid helps meet these costs, and the need for additional aid or aid programs. This information will help the Department of Education provide better service to students, and provide better advice to the United States Congress on the needs of students and their families who are trying to pay for postsecondary education. Since we are on a tight time schedule to collect this information, we would like to ask the questions over the phone now.

[MAKE EVERY EFFORT TO CONTINUE INTERVIEW OVER PHONE]

| | |
|---|---|
| YES, CONTINUE ON PHONE NOW .................... | 1 (MAIN QUESTIONNAIRE) |
| YES, CONTINUE ON PHONE SOME OTHER TIME ............................................ | 2 (SCHEDULE APPT AND RECORD ON CALL RECORD) |
| NO, PARENT/GUARDIAN WANTS COPY OF QUESTIONNAIRE MAILED................................ | 3 (B) (CODE 9 ON CALL RECORD) |
| NO, PARENT/GUARDIAN WILL MAIL QUESTIONNAIRE .................................................. | 4 (C) (CODE S2 ON CALL RECORD) |
| NO, (SPECIFY REASON) ________________ ______________________________________ | (THANK R AND TERMINATE) |

B. In order to send you another copy of the questionnaire, we would like to verify your name and address.

[READ INFORMATION FROM RESPONDENT INFORMATION SHEET. RECORD ANY NEW INFORMATION]

You should receive the form in a few days, by (DATE) _________. (ASK C)

C. When do you think you might be able to return the survey?

DATE ____________________

Thank you very much. Your responses are very important to the outcome of the survey.

Should we not receive the questionnaire we may call you back to obtain the information over the phone.

TERMINATE

# APPENDIX B

# NPSAS MEASUREMENT TASK REPORTS

# 1987 NPSAS MEASUREMENT TASK
# REPORT ON GPA SCALING

Westat, Inc.
November 1988

# 1987 NPSAS MEASUREMENT TASK
# REPORT ON GPA SCALING

## Introduction

The 1987 National Postsecondary Student Aid Study (NPSAS) contains one item concerning cumulative grade point average (GPA). Item R21D was designed to measure the student's cumulative grade point average at his/her current academic level.

GPA scale, however, was not consistent across institutions since institutions use different grading systems. Institutions may report GPA on any one of the following scales: 0-4 scale, 1-5 scale, 2-6 scale, 1-10 scale, 0-100 scale, 40-100 scale, and 50-100 scale. In order to facilitate the use of R21D byanalysts, a re-scaled (standardized) version of GPA has been created.

## Conversion Rules

Westat contacted the following institutions in order to evaluate existing GPA conversion systems: American Council of Education (ACE), Association of Community Colleges (ACC), American Association of Community and Junior Colleges (AACJC), American Association of Medical Colleges (AAMC), and American Association of Collegiate Registrars and Admission Officers (AACRAO). Among the institutions contacted, the conversion rules used by AAMC seemed to be most promising for our work. Table 1 summarizes the conversion rules for re-scaling the GPA's into the AAMC standard scale.

Table 1. Conversion rules for re-scaling GPA's into AAMC standard scale

| AAMC Standard scale | 100-point scale (0 - 100) | Continuous 4-point scale (0.0 - 4.0) |
|---|---|---|
| 0.0 | <60 | 0.0 |
| 0.5 | | 0.1 - 0.5 |
| 0.7 | 60 - 62 | 0.6 - 0.8 |
| 1.0 | 63 - 66 | 0.9 - 1.1 |
| 1.3 | 67 - 69 | 1.2 - 1.4 |
| 1.5 | | 1.5 |
| 1.7 | 70 - 72 | 1.6 - 1.8 |
| 2.0 | 73 - 76 | 1.9 - 2.1 |
| 2.3 | 77 - 79 | 2.1 - 2.4 |
| 2.5 | | 2.5 |
| 2.7 | 80 - 82 | 2.6 - 2.8 |
| 3.0 | 83 - 86 | 2.9 - 3.1 |
| 3.3 | 87 - 89 | 3.2 - 3.4 |
| 3.5 | | 3.5 |
| 3.7 | 90 - 92 | 3.6 - 3.8 |
| 4.0 | 93 -100 | 3.9 -4.0 |

## Determining GPA Scale

Before the above mentioned conversion rules could have been applied, it was necessary to identify the scale used for reporting the GPA. The identification of the GPA scale involved a number of steps.

The first step in this process involved computation of the within-school GPA distributions. Specifically, the mean, median, minimum, maximum, 5th and 95th percentiles were computed for each level ( i.e., freshman, sophomore, junior, senior, graduates and first professionals) within a particular institution. By examining these statistics, inferences were made concerning the GPA scale used by each institution.

Institutions whose initial inferred GPA scale was not 0-4.0 were further examined. A total of 92 institutions were in this category. For each, a printout of all the cases within the instutition was prepared. Each printout displayed the GPA's for all the cases within the institution sorted by student academic level. Based on a close examination of the GPA's within each institution, the GPA scales were revised.

For some institutions, however, the within-school GPA's were not sufficient to determine the GPA scale. We contacted 28 of these institutions by telephone to collect information on their GPA scale. Based on the information they provided, in conjunciton with within-school GPA distributions, the GPA scales for these institutions were determined.

Table 2 presents a distribution of students by GPA scale (i.e., R21SCLNW). As shown, 5,065 cases have missing values on R21SCLNW. These cases are clock/contact hour students who legitimately skipped question R21D. The 16,814 cases with a GPA scale of "9" are those cases whose GPA's were not specified. The 545 cases with R21SCLNW of "3" represent those cases for which the institutional GPA scale could be determined.

Table 2. Unweighted distribution of students by GPA Scale

| R21SCLNW[1] | Frequency | Percent | Cumulative Frequency | Cumulative Frequency |
|---|---|---|---|---|
| . | 5,065 | . | . | . |
| 1 | 36,749 | 67.0 | 36,749 | 67.1 |
| 2 | 545 | 1.0 | 37,294 | 68.1 |
| 3 | 156 | 0.3 | 37,450 | 68.4 |
| 4 | 557 | 1.0 | 38,007 | 69.4 |
| 9 | 16,814 | 30.7 | 54,821 | 100.0 |

[1] The description of scale value is as follows:
1 = 0-4.0 scale (0-4.3 and 0-4.4 have also been included in this category)
2 = 100-point scale (truncated 100-point scales have also been included in this category)
3 = undetermined scale
4 = other including 1-5, 2-6, 1-10, and 1-12 scales
9 = GPA was not specified

Tables 3 and 4 present the unweighted distribution of students by GPA scale and by institution type and control, respectively. As Table 3, indicates all the 156 cases whose institutional GPA scale could not have been determined were in 4-year institutions; 0.38 percent and 0.34 percent, respectively, of all cases in institutions categorized as "4-year no Ph.D." and "4-year with Ph.D." were assigned a GPA scale of "3". As Table 4 indicates, the majority of cases whose institutional GPA scale could not have been determined were in private, not-for-profit institutions; 0.61 percent of all cases in private, not-for-profit institutions were assigned a GPA scale of "3".

Table 3. Unweighted distribution of students by GPA scale and institution type

| GPA scale | Institution type | | | | |
|---|---|---|---|---|---|
| | Less than 2-year | 2-3 year | 4-year not Ph.D. | 4-year Ph.D. | Total[1] |
| 1 | 619 | 6,078 | 12,924 | 17,128 | 36,749 |
| 2 | 55 | 7 | 66 | 417 | 545 |
| 3 | 0 | 0 | 66 | 90 | 156 |
| 4 | 0 | 30 | 42 | 485 | 557 |
| 9 | 608 | 3,665 | 4,262 | 8,279 | 16,814 |
| Total[1] | 1,282 | 9,780 | 17,360 | 26,399 | 54,821 |

[1] Excludes clock/contact hour students.

Table 4. Unweighted distribution of students by GPA scale and institution control

| GPA scale | Institution type | | | |
|---|---|---|---|---|
| | Public | Private, not-for-profit | Private, for-profit | Total[1] |
| 1 | 19,553 | 15,540 | 1,656 | 36,749 |
| 2 | 87 | 398 | 60 | 545 |
| 3 | 8 | 148 | 0 | 156 |
| 4 | 430 | 127 | 0 | 557 |
| 9 | 7,631 | 8,154 | 1,029 | 16,814 |
| Total[1] | 27,709 | 24,367 | 2,745 | 54,821 |

[1] Excludes clock/contact hour students.

## Converting GPA's Into AAMC Standardized Scale

As Tables 3 and 4 indicate, most of the institutions report their GPA's on a 0-4.0 scale. For these institutions, the conversion to standardized AAMC scale was a relatively straightforward procedure (see Table 1).

Some institutions used a scale ranging from 0-4.3 or 0-4.4, where 4.3 and 4.4 represented A+. Since the AAMC standardized scale does not distinguish between A and A+, it was decided to convert 4.3's and 4.4's to 4.0. The institutions using 0-4.3 or 0-4.4 were also assigned a GPA scale of "1."

Some institutions reported their GPA's on a 1-5 scale. For these institutions, the GPA scale was first converted to 0-4.0 scale by subtracting 1.0 from each score. The resulting scores were then converted to the AAMC standardized scale.

A few institutions reported their GPA's on a scale ranging from 2 to 6. Similar to the procedures used for 1-5 scale, for institutions using 2-6 scale the GPA scale was first converted to 0-4.0 by subtracting 2 from each score. The resulting scores were then converted to the AAMC standardized scale.

A number of institutions reported their GPA's on a 0-100 scale. For these institutions, the conversion of GPA's into AAMC standardized scale was also a relatively straightforward procedure (see Table 1).

A few institutions used truncated 100-point scales. The truncation was evident at the lower end of the scale. In particular scales ranging from 40 to 100, 45 to 100, or 50 to 100 were common among the institutions using a truncated 100-point scale. Since the AAMC standardized scale categorizes scores less than 60 into one category, it was decided that the truncated 100-point scales would be treated the same way as the unrestricted 100-point scale.

A number of institutions used GPA scales that were not among the scales for which the AAMC conversion rules were directly applicable. The 0-10 and 0-12 scales were among such scales. In order to convert GPA's reported on these scales into the AAMC standardized scales, the scales were first converted to 100-point scale by multiplying with appropriate scaling factors. The resulting 100-point scales were then converted to the AAMC standardized GPA scale.

As mentioned previously, for a few institutions neither the telephone calls nor the within-school distributions provided conclusive information on their GPA scale. The GPA's pertaining to these institutions were not converted to the AAMC standardized scale. Furthermore, some institutions used school ranks instead of GPA. The conversion of school ranks into AAMC standardized scale was deemed to be infeasible. As such, the GPA's pertaining to these schools were not converted to the AAMC standard scale.

**AAMC Standardized GPA's**

The original GPA variable, of course, will be retained in NPSAS files. However, two new variables will be added to the NPSAS Fall Records Update File and the Student Survey Data File. The variable R21SCLNW, the GPA scale, indicates the type of GPA scale used by the institution and the variable STAN21D provdies the AAMC standaridized GPA's.

It should be pointed out that R21SCLNW was set at the institution level, whereas the variable STAN21D was set at the student level. Since the conversion of GPA's into the standard AAMC scale requires the knowledge of the type of scale used by the institution, cases with missing values on R21SCLNW will also have missing values on STAN21D. However, there are cases with valid data on R21SCLNW whose standard AAMC scale will be missing.

Table 5 presents the unweighted distribution of students by the standardized GPA's (STAN21D). As shown, 5,292 cases have missing values on STAN21D. Of the 5,292 cases with missing values on STAN21D, 5,065 cases are clock/contact hour students who have missing values on R21SCLNW. Thus, 227 credit hour students with nonmissing GPA's could not have been re-scaled. Of these, 156 cases have a value of 3 on R21SCLNW. Thus, only 71 cases with valid data on both R21SCLN@ and R21D could not have been re-scaled. Most of these 71 cases were discrepant cases, e.g., a score of 85 in a school with a 0-4.0 scale.

**Table 5.** **Distribution of students by standard GPA's**

| STAN21D | Frequency | Percent | Cumulative frequency | Cumulative percent |
|---|---|---|---|---|
| . | 5,292 | . | . | . |
| 0.0 | 247 | 0.5 | 247 | 0.5 |
| 0.5 | 108 | 0.2 | 355 | 0.7 |
| 0.7 | 123 | 0.2 | 478 | 0.9 |
| 1.0 | 368 | 0.7 | 846 | 1.6 |
| 1.3 | 507 | 0.9 | 1,353 | 2.5 |
| 1.5 | 352 | 0.6 | 1,705 | 3.1 |
| 1.7 | 1,516 | 2.8 | 3,221 | 5.9 |
| 2.0 | 2,554 | 4.7 | 5,775 | 10.6 |
| 2.3 | 5,477 | 10.0 | 11,252 | 20.6 |
| 2.5 | 1,882 | 3.4 | 13,134 | 24.1 |
| 2.7 | 5,520 | 10.1 | 18,654 | 34.2 |
| 3.0 | 5,859 | 10.7 | 24,513 | 44.9 |
| 3.3 | 4,740 | 8.7 | 29,253 | 53.6 |
| 3.5 | 1,738 | 3.2 | 30,991 | 56.8 |
| 3.7 | 3,980 | 7.3 | 34,971 | 64.1 |
| 4.0 | 2,829 | 5.2 | 37,800 | 69.2 |
| 999.0 | 16,814 | 30.8 | 54,614 | 100.0 |

[1] Excludes clock/contact hour students.

Tables 6 and 7 present the distribution of AAMC standardized GPA scale by institution type and control, respectively. Moreover, the unweighted mean and standard deviation of AAMC standardized GPA's (STAN21D) by institution type and control are presented in Table 8. It should be noted that the mean and standard deviation are based on cases with nonmissing values on STAN21D. The mean standardized GPA for public, less than 2-year institutions (3.21) was highest among the various categories of institution type and control. However, due to small sample size, the sampling error associated with this estiimate may be high.

Table 6. Unweighted distribution of students by standardized GPA's and institution type

| Standardized GPA | Institution type | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | Total[1] |
| 0.0 | 0 | 1 | 139 | 107 | 724 |
| 0.5 | 2 | 35 | 27 | 44 | 108 |
| 0.7 | 6 | 30 | 45 | 42 | 123 |
| 1.0 | 10 | 90 | 167 | 101 | 368 |
| 1.3 | 7 | 115 | 204 | 181 | 507 |
| 1.5 | 5 | 86 | 116 | 125 | 332 |
| 1.7 | 25 | 303 | 558 | 630 | 1,516 |
| 2.0 | 38 | 466 | 920 | 1,130 | 2,554 |
| 2.3 | 59 | 749 | 2,025 | 2,644 | 5,477 |
| 2.5 | 27 | 306 | 655 | 894 | 1,882 |
| 2.7 | 63 | 744 | 1,918 | 2,795 | 5,520 |
| 3.0 | 99 | 985 | 1,895 | 2,880 | 5,859 |
| 3.3 | 94 | 689 | 1,520 | 2,243 | 4,740 |
| 3.5 | 26 | 263 | 584 | 865 | 1,738 |
| 3.7 | 95 | 597 | 1,268 | 2,020 | 3,980 |
| 4.0 | 118 | 642 | 964 | 1,105 | 2,829 |
| 9.0 | 608 | 3,665 | 4,262 | 8,279 | 16,814 |
| Total | 1,283 | 9,766 | 12,273 | 26,273 | 54,821 |

---

[1] Excludes clock/contact hour students.

**Table 7.** **Unweighted distribution of students by standardized GPA's and institution control**

| Standardized GPA | Institution control | | | |
|---|---|---|---|---|
| | 1 | 2 | 3 | Total[1] |
| 0.0 | 215 | 31 | 1 | 247 |
| 0.5 | 60 | 39 | 9 | 108 |
| 0.7 | 80 | 34 | 9 | 125 |
| 1.0 | 258 | 86 | 24 | 368 |
| 1.3 | 304 | 180 | 23 | 507 |
| 1.5 | 199 | 115 | 18 | 18 |
| 1.7 | 879 | 587 | 59 | 50 |
| 2.0 | 1,458 | 1,006 | 90 | 2,554 |
| 2.3 | 3,095 | 2,206 | 176 | 5,477 |
| 2.5 | 1,028 | 787 | 67 | 1,882 |
| 2.7 | 2,908 | 2,417 | 195 | 5,520 |
| 3.0 | 2,987 | 2,606 | 266 | 5,859 |
| 3.3 | 2,266 | 2,219 | 255 | 4,740 |
| 3.5 | 835 | 825 | 78 | 1,738 |
| 3.7 | 1,974 | 1,780 | 226 | 3,980 |
| 4.0 | 1,475 | 1,128 | 226 | 2,829 |
| 9.0 | 7,631 | 8,154 | 1,029 | 16,814 |
| Total | 27,652 | 24,200 | 2,742 | 54,821 |

[1] Excludes clock/contact hour students.

Table 8. Unweighted mean and standard deviation of standardized GPA by institution type and control

| Institution type and control | N[1] | Mean | Standard deviation |
|---|---|---|---|
| Public | | | |
| Less than 2-year | 50 | 3.21 | 0.628 |
| 2-3 year | 3,862 | 2.83 | 0.790 |
| 4-year not Ph.D. | 6,216 | 2.73 | 0.730 |
| 4-year Ph.D. | 9,095 | 2.85 | 0.674 |
| Private, not-for-profit | | | |
| Less than 2-year | 114 | 2.74 | 0.645 |
| 2-3 year | 1,143 | 2.75 | 0.741 |
| 4-year not Ph.D. | 6,048 | 2.90 | 0.687 |
| 4-year Ph.D. | 8,065 | 2.90 | 0.655 |
| Private, for-profit | | | |
| Less than 2-year | 510 | 3.08 | 0.814 |
| 2-3 year | 1,061 | 2.93 | 0.735 |
| 4-year not Ph.D. | 129 | 3.05 | 0.666 |

[1] Excludes cases with missing values on STAN21D.

### Evaluation of Standardized GPA's

The evaluation of AAMC standardized GPA's encompassed numerous activities. These activities can be grouped into two major categories. One category of activities focused on a review and examination of the processes by which standardization of GPA's were accomplished. The other focused on the examination of the products, i.e., STAN21D.

Major activities under the first category were: (1) reviewing telephone logs, procedures, and other relevant materials that were used in assigning GPA scale; and (2) a step-by-step review of computer programs and intermediate data files for accuracy.

Major activities relating to "product evaluation" were: (1) examine the distribution of cases with missing GPA scale; (2) examine the distribution of cases with missing standardized GPA's; and (3) examining the distribution of standardized GPA's by GPA scale and institution type and control.

In summary, both the process and product evaluations did not reveal any problems with respect to the standardization of GPA's. In view of the fact that both the number of cases with GPA scale of "3" and standardized GPA score of missing were small (i.e., 156 and 227 cases respectively), the standardization process will be adequate for most research purposes.

# 1987 NPSAS MEASUREMENT TASK
# REPORT ON CREDIT HOURS SCALING

Westat, Inc.
November 1988

# 1987 NPSAS MEASUREMENT TASK
# REPORT ON CREDIT HOURS SCALING

## Introduction

The 1987 National Postsecondary Student Aid Study (NPSAS) contains two items concerning earned credit hours. Item R21B was designed to measure the number of credit hours for which a student was enrolled at the beginning of the fall 1986 academic year. Item R21C was designed to measure the total (cumulative) number of credit hours the student had earned at his/her current academic level.

The credit-hour scale, however, was not consistent across institutions since institutions use different reporting and academic calendar systems. Institutions may report credits as semester hours, quarter hours, trimester hours, course counts, or other units. In order to facilitate the use of R21B and R21C by analysts, re-scaled versions of these two variables have been created. Since the majority of the institutions report credits as semester hours, the decision was made to convert R21B and R21C into annualized semester hour equivalencies. Using annualized semester hour equivalents for R21B and R21C, the total number of credit hours earned through the end of Fall 1986 academic term is obtained by adding R21B and R21C.

*Users should note that it is inappropriate to use annualized semester hour equivalents to measure credit hours during a single term, such as in determining part-time/full-time status during a term. The last section of this report addresses this topic in more details.*

## Conversion Factors

Westat contacted the following organizations in order to evaluate existing credit hour conversion systems: American Council of Education (ACE), Association of Community Colleges (ACC), American Association of Community and Junior Colleges (AACJC), American Association of Medical Colleges (AAMC), and American Association of Collegiate Registrars and Admissions Officers (AACRAO). With the exception of AACRAO, the organizations contacted did not have conversion systems suitable for use in re-scaling NPSAS data. Therefore, the conversion factors used by AACRAO were adopted for re-scaling R21B and R21C. Table 1 summarizes these conversion factors.

**Table 1. Conversion factors for re-scaling credit hours**

| Original scale | Converted scale | Conversion factor |
|---|---|---|
| Semester hours | Semester hours | 1 |
| Quarter hours | Semester hours | 2/3 |
| Trimester hours | Semester hours | 1 (if at least 15 weeks)<br>(if less than 15 weeks the length of trimester is considered) |
| 4/1/4 term hours | Semester hours | 1 |

Sixteen NPSAS institutions were found to report course units instead of credit hours. For converting "course units" to "semester hours" conversion factors based on institution type and control were derived. Specifically, the mean of R21B (credit hours currently enrolled) was determined for full-time student for all categories of institution type and control. For each of the 16 institutions under consideration, mean course units was also determined. The ratio of the two means (i.e., R21B and course units) was used as the conversion factor for converting "course units" into "semester hours". Table 2 displays the conversion factors for the 16 institutions.

**Table 2. Conversion factors for course units**

| Institu-tion | Control | Type | N | Mean Course Units | Mean R21B[1] | Conversion Factor |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 54 | 4.296 | 11.96 | 2.784 |
| 2 | 2 | 3 | 104 | . | 11.96 | ( )[1] |
| 3 | 2 | 4 | 87 | 3.881 | 12.39 | 3.192 |
| 4 | 2 | 3 | 70 | 3.357 | 11.96 | 3.562 |
| 5 | 2 | 4 | 13 | 5.000 | 12.39 | 2.478 |
| 6 | 3 | 1 | 12 | 1.000 | 17.48 | (17.48)[1] |
| 7 | 2 | 4 | 278 | 3.658 | 12.39 | 3.388 |
| 8 | 3 | 2 | 32 | 4.781 | 12.60 | 2.635 |
| 9 | 2 | 4 | 30 | 2.333 | 12.39 | 5.311 |
| 10 | 2 | 3 | 77 | 4.390 | 11.96 | 2.727 |
| 11 | 2 | 4 | 121 | 7.851 | 12.39 | 1.578 |
| 12 | 2 | 4 | 221 | 7.267 | 12.39 | 1.705 |
| 13 | 2 | 3 | 21 | 3.381 | 11.96 | 3.573 |
| 14 | 3 | 1 | 6 | 5.000 | 17.48 | 3.496 |
| 15 | 3 | 1 | 8 | 6.250 | 17.48 | 2.794 |
| 16 | 2 | 3 | 71 | 3.507 | 11.96 | 3.410 |

[1] Conversion not possible as explained in text.

Of the 16 institutions listed above, two institutions were not converted to "semester hours"; one institution had missing values on R21B and the other institution had an unusually high conversion factor (17.48). For the remaining 14 institutions, the conversion factors displayed above were used in converting both R21B and R21C to semester hour equivalencies.

## Academic Calendar System

The identification of the academic calendar system involved a number of steps. The first step involved the identification of institutions which use course units instead of credit hours. The within-school distributions of R21B and R21C were used to identify the 16 NPSAS institutions which use course units.

The second step involved comparing the IPEDS reported academic calendar system with the NPSAS reported (Institution Checklist Data File) calendar system. Table 3 presents a summary of this comparison.

**Table 3. Summary of calendar systems as reported by IPEDS and NPSAS**

| Number of NPSAS institutions | IPEDS AND NPSAS reported calendar systems |
|---|---|
| 541 | IPEDS and NPSAS match (valid responses). |
| 289 | IPEDS missing, NPSAS valid. |
| 19 | IPEDS "Other", NPSAS valid. |
| 28 | IPEDS valid, NPSAS missing. |
| 12 | IPEDS valid, NPSAS "Other". |
| 40 | IPEDS and NPSAS do not match (valid responses). |
| 9 | IPEDS and NPSAS "Other". |
| 25 | IPEDS missing or "Other", NPSAS missing. |
| 111 | IPEDS missing, NPSAS "Other". |
| 1074 | Total NPSAS Institutions |

As Table 3 indicates, valid information on academic calendar systems was available for 889 (541+289+19+28+12) institutions from either IPEDS, or NPSAS, or both. For these institutions the identification of calendar system was a straightforward procedure.

Of the 185 (40+9+25+111) institutions requiring further work, 40 institutions had valid IPEDS and NPSAS data that did not match. In order to resolve the academic calendar systems for these institutions, the within-school distributions of R21B and R21C were examined. On the basis of these distributions, and taking into account the IPEDS and NPSAS reported calendar systems, the academic calendar systems for these institutions were determined. It should be pointed out that in determining the academic calendar systems of these institutions, the IPEDS information was considered of higher priority. Thus, unless the NPSAS within-school distributions strongly indicated other types of scales, the IPEDS reported calendar system was adopted as the institution academic calendar system.

For the remaining 145 institutions (9+25+111), the within-school distributions of R21B and R21C were examined to determine the academic calendar system. The majority of these 145 institutions were found to operate under a clock hour system. However, 44 institutions were contacted by telephone to obtain information on their calendar system because the within-school distributions did not adequately indicate the calendar system.

## Academic Credits/Calendar System

Creation of CREDSYS was necessary in order to differentiate among institutions which report credits as "semester hours," "quarter hours," "trimester hours," "4-1-4 plan hours," "clock hours," or other credit reporting systems. As Table 4 indicates, six institutions with an academic calendar system of "semester" report their credits as course units. Table 4 also indicates, a total of 332 institutions were identified as reporting clock hours, of which 94 institutions report a semester, quarter, trimester, or 4-1-4 calendar system. Sixteen institutions were identified as reporting course units rather than credit hours. The "other" categories include several proprietary institutions with small counts for which the calendar system or credit hour system was inconsistent with the NPSAS within-school distributions of R21B and R21C and therefore could not have been assigned values of CALSYS or CREDSYS.

## Creation of CREDSYS and CALSYS Variables

As a result of the procedures described above, two variables were created. The variable CALSYS represents the academic calendar system of the institution, and the variable CREDSYS represents the credit/calendar system of the institution. Table 4 presents a crosstabulation of these two variables for each of the 1074 NPSAS institutions.

**Table 4. Institution-level distribution of credit and calendar systems**

| | CALSYS | | | | | |
|---|---|---|---|---|---|---|
| CREDSYS | Semester | Quarter | Trimester | 4-1-4 plan | Other | Total |
| Semester hours | 482 | 0 | 0 | 0 | 0 | 482 |
| Quarter hours | 0 | 189 | 0 | 0 | 0 | 189 |
| Trimester hours | 0 | 0 | 23 | 0 | 0 | 23 |
| 4-1-4 plan hours | 0 | 0 | 0 | 26 | 0 | 26 |
| Other | 1 | 1 | 0 | 0 | 4 | 6 |
| Clock hours | 35 | 53 | 6 | 0 | 238 | 332 |
| Course units | 6 | 2 | 1 | 2 | 5 | 16 |
| Total | 524 | 245 | 30 | 28 | 247 | 1074 |

**Producing Scaled Values**

The institution-level credit/calendar system was merged to the student file. Every student (n=59886) in the file received a value of CREDSYS for his/her institution.

Table 5 presents the unweighted distribution of students by credit/calendar system (CREDSYS). Tables 6 and 7 present the distribution of students by institution type and control, respectively.

**Table 5. Distribution of students by credit/calendar system**

| CREDSYS | Frequency | Percent |
|---|---|---|
| Semester hours | 37133 | 62.0 |
| Quarter hours | 11108 | 18.6 |
| Trimester hours | 1376 | 2.3 |
| 4-1-4 term hours | 2245 | 3.8 |
| Other | 385 | 0.6 |
| Clock hours | 6245 | 10.4 |
| Course units | 1394 | 2.3 |
| Total | 59886 | 100.0 |

**Table 6. Distribution of students by calendar/credit system and by institution type**

| | Institution type | | | | |
|---|---|---|---|---|---|
| Credit systems | Less than 2 year | 2-3 year | 4 year not Ph.D. | 4 year Ph.D. | TOTAL |
| Semester hours | 44 | 6379 | 13628 | 17082 | 37133 |
| Quarter hours | 569 | 2783 | 1547 | 6209 | 11108 |
| Trimester hours | 35 | 178 | 660 | 503 | 1376 |
| 4-1-4 term hours | 25 | 51 | 1132 | 1037 | 2245 |
| Other | 0 | 38 | 0 | 347 | 385 |
| Clock hours | 4530 | 1206 | 6 | 503 | 6245 |
| Course units | 30 | 34 | 397 | 933 | 1394 |
| Total | 5233 | 10669 | 17370 | 26614 | 59886 |

**Table 7. Distribution of students by calendar/credit system and by institution control**

| | Institution control | | | |
|---|---|---|---|---|
| Credit systems | Public | Private, not-for-profit | Private, for-profit | TOTAL |
| Semester hours | 19910 | 16757 | 466 | 37133 |
| Quarter hours | 6552 | 3197 | 1359 | 11108 |
| Trimester hours | 390 | 748 | 238 | 1376 |
| 4-1-4 term hours | 708 | 1537 | 0 | 2245 |
| Other | 10 | 347 | 28 | 385 |
| Clock hours | 1303 | 886 | 4056 | 6245 |
| Course units | 0 | 1330 | 64 | 1394 |
| Total | 28873 | 24802 | 6211 | 59886 |

The variables R21B and R21C were converted to semester hour equivalents using CREDSYS and by multiplying by the conversion factors in Table 1. The variables SEMQ21B and SEMQ21C contain the scaled values of R21B and R21C, respectively. For example, if R21B was equal to 9 for a student attending an institution whose credit hour reporting system was quarter hours, R21B was multiplied by 2/3. Thus, SEMQ21B was computed as 6 in this case.

The variables SEMQ21B and SEMQ21C were set to blank for all students within institutions with CREDSYS of "other" or "clock hour." Additionally, the variable SEMQ21C was set to blank for twelve cases with unusually large values of R21C (i.e., R21C greater than 999). For students with missing values (9-fill) on R21B and/or R21C and CREDSYS of "semester", "quarter", "trimester", "4-1-4 plan", or "course unit" the variables SEMQ21B and/or SEMQ21C were set to "not specified" (9-fill).

When non-integer values resulted because of a fractional conversion factor, the resulting scaled value was rounded to the nearest whole number.

**Evaluation of Scaled R21B and R21C**

The evaluation of SEMQ21B and SEMQ21C encompassed numerous activities. These activities can be grouped into two major categories. One category of activities focused on a review and examination of the precesses by which standardization of R21B and R21C were accomplished. The other category of activities focused on the examination of the products, i.e., SEMQ21B and SEMQ21C.

Major activities under the first category were: (1) reviewing telephone longs, procedures, and other relevant materials that were used in assigning academic calendar system and credit hour reporting systems; and (2) a step-by-step review of computer programs and intermediate data files for accuracy.

Major activities relating to product evaluation were: (1) examine the distribution of cases with missing SEMQ21B and SEMQ21C; (2) examine the distribution of SEMQ21B and SEMQ21C by institution; (3) examine the distribution of SEMQ21B and SEMQ21C by institution type, control, and credit hour reporting systems. By way of summary, some of the important features of these distributions are presented in this report. Tables 8 and 9 present the unweighted distributions of SEMQ21B and SEMQ21C.

**Table 8. Distribution of students by semester hour equivalencies for R21B**

| SEMQ21B | Frequency | Percent | Cumulative percent |
|---|---|---|---|
| Blank | 7051 | | |
| 0 | 392 | 0.7 | 0.7 |
| 1 - 5 | 8894 | 16.8 | 17.6 |
| 6 - 10 | 12498 | 23.7 | 41.2 |
| 11 - 15 | 19210 | 36.4 | 77.6 |
| 16 - 20 | 8425 | 15.9 | 93.5 |
| 21 - 30 | 596 | 1.1 | 94.7 |
| 31 - 98 | 155 | 0.3 | 95.0 |
| 99 (9 fill) | 2665 | 5.0 | 100.0 |
| Total | 59886 | 100.0 | |

**Table 9. Distribution of students by semester hour equivalencies for R21C**

| SEMQ21C | Frequency | Percent | Cumulative percent |
|---|---|---|---|
| Blank | 7080 | | |
| 0 | 7282 | 13.8 | 13.8 |
| 1 - 19 | 10213 | 19.3 | 33.1 |
| 20 - 49 | 11882 | 22.5 | 55.6 |
| 50 - 74 | 6771 | 12.9 | 68.5 |
| 75 - 100 | 5150 | 9.8 | 78.2 |
| 101 - 200 | 4954 | 9.4 | 87.6 |
| 201 - 300 | 88 | 0.2 | 87.8 |
| 301 and up | 54 | 0.1 | 87.9 |
| 999 (9 fill) | 6412 | 12.1 | 100.0 |
| Total | 59886 | 100.0 | |

The unweighted means of SEMQ21B and SEMQ21C by institution type and control and CREDSYS are presented in Tables 10 and 11, respectively.

**Table 10. Unweighted mean of SEMQ21B and SEMQ21C by institution type and control**

| Institution Type | Institution Control | Mean SEMQ21B | Mean SEMQ21C |
|---|---|---|---|
| Less than 2 year | Public | 10.1 | 12.7 |
| Less than 2 year | Private, not-for-profit | 9.7 | 18.3 |
| Less than 2 year | Private, for-profit | 10.6 | 23.8 |
| 2-3 year | Public | 7.9 | 22.2 |
| 2-3 year | Private, not-for-profit | 12.2 | 26.3 |
| 2-3 year | Private, for-profit | 10.7 | 24.3 |
| 4 year not Ph.D. | Public | 10.8 | 50.9 |
| 4 year not Ph.D. | Private, for-profit | 11.5 | 44.6 |
| 4 year not Ph.D. | Private, for-profit | 14.5 | 46.6 |
| 4 year Ph.D. | Public | 11.2 | 52.2 |
| 4 year Ph.D. | Private, not-for-profit | 11.5 | 44.0 |

**Table 11.Unweighted mean of SEMQ21B and SEMQ21C by CREDSYS**

| CREDSYS | Mean SEMQ21B | Mean SEMQ21C |
|---|---|---|
| Semester Hours | 11.5 | 43.6 |
| Quarter Hours | 8.4 | 42.2 |
| Trimester Hours | 11.0 | 43.5 |
| 4-1-4 Term Hours | 11.9 | 43.5 |
| Other | . | . |
| Clock Hours | . | . |
| Course Units | 12.3 | 61.6 |

The means reported in Tables 10 and 11 include both full-time and part-time students. Obviously, the mean for full-time students on SEMQ21B will be higher than the mean for part-time students. In addition, the means reported in Tables 10 and 11 are based on students with different academic levels; first-time undergraduates are expected to have a lower mean on SEMQ21C than other types of undergraduates.

The mean of SEMQ21C for the institutions reporting "course counts" is significantly higher than other types of credit hour reporting systems. This difference may in part be due to the fact that the conversion factors were developed on the basis of R21B distributions. Since the validity of the conversion factors for SEMQ21C is suspect, users may decide to convert these values in missing in certain analyses. The conversion can be easily achieved in SAS using a statement such as the following:

```
IF CREDSYS-77 THEN SEMQ21C.;
```

### Comparing Current Credit Hours Using the Annualized Standard Values

As Table 11 indicates, the mean on SEMQ21B for "quarter hours" is lower than other credit hour reporting systems. One may incorrectly conclude that the "quarter hour" students, on the average per term, enroll in fewer credits than "semester hour", "trimester hour", or "4-1-4" term hour students. The reason for this apparent discrepancy relates to the way the variable SEMQ21C has been standardized. The variable SEMQ21B has been annualized such that estimated cumulative credit hours by end of Fall 1986 academic term can easily be computed by adding SEMQ21B and SEMQ21C. However, if SEMQ21B is used for determining full-time/part-time status during a single (fall) term, an adjustment is required. Specifically, for determining full-time/part-time status, SEMQ21B needs to be multiplied by 1.5 for all observations whose credit reporting system is "quarter hours". This adjustment can easily be performed in SAS using a statement such as the following:

```
IF CREDSYS = 2 THEN SEMQ21B = SEMQ21B * 1.5;
```

# APPENDIX C

# NPSAS STUDENT SURVEY FOOD AND HOUSING EXPENDITURES FLAGS

February 18, 1988

## Methodology for Creating Food and Housing and Food Expdenditure Flags -- NPSAS Student Survey

Four flag variables and a living arrangement variable were constructed first for the fall semester and then for the spring semester. The purpose of the living arrangement variables was to classify students into meaningful groups for creating flag variables. The purpose of the flag variables was to give analysts information about possible scales used by students in reporting food and housing expenditures. The flag variables for the fall term are described in Table 1. The flag variables for the spring term are described in Table 2. The living arrangement variables for fall and spring terms are described in Table 3.

The flags were created so that each case received the first applicable flag variable value, taking the order as listed in Tables 1 and 2. Thus, if a case qualified to be given the value "1" on a flag variable, its code remained a "1" for that flag variable even if it also satisfied the conditions to be coded a "6" or some other subsequent value on the flag variable.conditions.

Students whose living arrangements could not be determined from S10 (Fall) and S40 (Spring) did not have their values imputed. Students who reported living on campus, but with information in one place only in S11 were assumed to live on campus if that value was sufficiently high.

Attachment A presents weighted and unweighted frequency distribution for the flag variables.

Tables 4 and 5 present the detailed rules used in creating fall term flag variables. Tables 6 and 7 present the rules used in creating the spring term flag variables. The rules used for the spring term are in fact identical to those used for the fall term.

Our assessment of the second column of variables S12 and S42 (proportion of monthly expenses used for education) is that at least sofar as rent and food are concerned it is not necessary to create flag variables. Table 8 is a summary distribution of the percent of rent allocated to education by respondents. Most report 100%. The number of missing values for monthly food allocated to education is very high, and a flag variable would probably not be useful. Attachment B presents more detailed analyses of the relationship between the first and second columns of S12 and S42. We do not see patterns that would argue for the creation of flag variables.

## TABLE 1 - FALL SEMESTER FLAGS

S11FLAG1:

1. S11 IS A TOTAL

S11FLAG2:

1. S11 IS A TOTAL
2. LIVING ARRANGEMENT COULD NOT BE DETERMINED
3. INCONSISTENT LIVING ARRANGEMENT, CAMPUS-HOUSING STUDENT GAVE NO VALUE FOR S11
4. INCONSISTENT LIVING ARRANGEMENT, NON-CAMPUS-HOUSING STUDENT GAVE VALID VALUE FOR S11
5. TOTAL ROOM AND BOARD > $3,000, AND ROOM = BOARD
6. ROOM CHARGE > $3,000
7. BOARD CHARGE > $3,000
8. TOTAL ROOM AND BOARD > $3,000
9. TOTAL ROOM AND BOARD < $3,000 AND ROOM = BOARD
10. ROOM CHARGE < $300
11. BOARD CHARGE < $300 AND STUDENT LIVES ON CAMPUS
12. BOARD CHARGE < $300 AND STUDENT LIVES OFF CAMPUS
13. BOARD CHARGE < $300 AND STUDENT LIVES WITH PARENTS

S12FLAG1:

1. STUDENT HOUSING RESIDENTS REPORTING MONTHLY INFO
2. MONTHLY RENT < $100
3. MONTHLY RENT > $800 FOR UNMARRIED STUDENT
4. MONTHLY RENT > $1,500 FOR MARRIED STUDENT

S12FLAG2:

1. BOARD CHARGE > $300 AND MONTHLY FOOD > $200.
2. BOARD CHARGE < $300 AND MONTHLY FOOD > $500.
3. MONTHLY FOOD > $500 FOR UNMARRIED STUDENT
4. MONTHLY FOOD > $500 FOR MARRIED STUDENT

## TABLE 2 - SPRING SEMESTER FLAGS

**S11FLAG1:**

1. S41 IS A TOTAL

**S41FLAG2:**

1. S41 IS A TOTAL
2. LIVING ARRANGEMENT COULD NOT BE DETERMINED
3. INCONSISTENT LIVING ARRANGEMENT, CAMPUS-HOUSING STUDENT GAVE NO VALUE FOR S11
4. INCONSISTENT LIVING ARRANGEMENT, NON-CAMPUS-HOUSING STUDENT GAVE VALID VALUE FOR S11
5. TOTAL ROOM AND BOARD > $3,000, AND ROOM = BOARD
6. ROOM CHARGE > $3,000
7. BOARD CHARGE > $3,000
8. TOTAL ROOM AND BOARD > $3,000
9. TOTAL ROOM AND BOARD < $3,000 AND ROOM = BOARD
10. ROOM CHARGE < $300
11. BOARD CHARGE < $300 AND STUDENT LIVES ON CAMPUS
12. BOARD CHARGE < $300 AND STUDENT LIVES OFF CAMPUS
13. BOARD CHARGE < $300 AND STUDENT LIVES WITH PARENTS

**S42FLAG1:**

1. STUDENT HOUSING RESIDENTS REPORTING MONTHLY INFO
2. MONTHLY RENT < $100
3. MONTHLY RENT > $800 FOR UNMARRIED STUDENT
4. MONTHLY RENT > $1,500 FOR MARRIED STUDENT

**S42FLAG2:**

1. BOARD CHARGE > $300 AND MONTHLY FOOD > $200.
2. BOARD CHARGE < $300 AND MONTHLY FOOD > $500.
3. MONTHLY FOOD > $500 FOR UNMARRIED STUDENT
4. MONTHLY FOOD > $500 FOR MARRIED STUDENT

| TABLE 3 - LIVING ARRANGEMENT VARIABLE | F_LIVARR<br>(Fall) | S_LIVARR<br>(Spring)<br>(Missing for non-attenders) |
|---|---|---|
| 1. LIVE OFF CAMPUS/EAT ON CAMPUS | S10 = 2<br>S11A = 0 OR MISSING<br>S11B = VALID VALUE | S40 = 2<br>S41A = 0 OR MISSING<br>S41B = VALID VALUE |
| 2. LIVE OFF CAMPUS/EAT OFF CAMPUS | S10 = 2<br>S11A = 0 OR MISSING<br>S11B = 0 OR MISSING | S40 = 2<br>S41A = 0 OR MISSING<br>S41B = 0 OR MISSING |
| 3. LIVE ON CAMPUS/EAT ON CAMPUS | S10 = 3<br>S11A = VALID VALUE<br>S11B = VALID VALUE OR S11FLAG1 = 1<br>OR<br>S10 = 3<br>S11A = 0 OR MISSING<br>S11B = VALID VALUE & S11FLAG1 = 1 | S40 = 3<br>S41A = VALID VALUE<br>S41B = VALID VALUE OR S41FLAG1 = 1<br>S40 = 3<br>S41A = 0 OR MISSING<br>S41B = VALID VALUE & S41FLAG1 = 1 |
| 4. LIVE ON CAMPUS/EAT OFF CAMPUS | S10 = 3<br>S11A = VALID VALUE<br>S11B = 0 OR MISSING | S40 = 3<br>S41A = VALID VALUE<br>S41B = 0 OR MISSING |
| 5. LIVE WITH PARENTS/EAT ON CAMPUS | S10 = 1<br>S11A = 0 OR MISSING<br>S11B = VALID VALUE | S40 = 1<br>S41A = 0 OR MISSING<br>S41B = VALID VALUE |
| 6. LIVE WITH PARENTS/EAT OFF CAMPUS | S10 = 1<br>S11A = 0 OR MISSING<br>S11B = 0 OR MISSING | S40 = 1<br>S41A = 0 OR MISSING<br>S41B = 0 OR MISSING |
| 7. COULD NOT BE DETERMINED | S10 = MISSING OR OUT OF RANGE | S40 = MISSING OR OUT OF RANGE |
| 8. INCONSISTENT INFORMATION | S10 = 3<br>S11A = 0 OR MISSING<br>OR<br>S10 = 1 OR 2<br>S11A = VALID VALUE | S40 = 3<br>S41A = 0 OR MISSING<br>OR<br>S40 = 1 OR 2<br>S41A = VALID VALUE |

TABLE 4.1 - FLAG RULES FOR S11A AND S11B REPORTED AS A TOTAL. (AMOUNT FOR FALL TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Student lives in campus housing, yet reports only one amount, either in S11A or in S11B.<br>(S10 = 3 and S11A = valid value and S11FLAG = 1 and S11B = invalid value)<br>or<br>(S10 = 3 and S11A = invalid value and S11B = $200 or more) | Term room and board paid to the school are reported as a total in either S11A or S11B. | Set flag. | S11FLAG1 = 1 |
| o All others. | | No flag set. | |
| o TOTAL | | | |

TABLE 4.2 - FLAG RULES FOR S11A AND S11B (AMOUNT FOR FALL TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Clerical staff has flagged S11 as a total.<br>(S11FLAG=1) | Food and housing costs were reported as a total. | Set flag. | S11FLAG2 = 1 |
| o Living arrangement could not be determined.<br>(F_LIVARR = 7) | Validity of S11A and S11B is suspect. | Set flag. | S11FLAG2 = 2 |
| o Living arrangement information is inconsistent.<br>(S10 = 3 and S11A = 0 or missing)<br>or<br>(S10 = 1 or 2 and S11A = valid value) | Validity of S11A suspect. | Set flag. | S11FLAG2 = 3<br>or<br>S11FLAG2 = 4 |
| o Total term room and board is more than $3,000, and both are same reported value.<br>(S11A + S11B > $3,000) and (S11A = S11B) | Student probably wrote total in both S11A and S11B. | Set flag. | S11FLAG2 = 5 |
| o Term room charge is more than $3,000, and is not obviously a total of room and board.<br>(S11A > $3,000 and S11B = valid value) | Probably not term information, may be annual, but high even for that. | Set flag. | S11FLAG2 = 6 |
| o Term food charge is more than $3,000, and is not obviously a total of room and board.<br>(S11B > $3,000 and S11A = valid value) | Probably not term information, may be annual, but high even for that. | Set flag. | S11FLAG2 = 7 |
| o Total term room and board is more than $3,000.<br>(S11A + S11B > $3,000) | Probably not term information, but annual. | Set flag. | S11FLAG2 = 8 |
| o Term room charge and term food charge are the same reported value, and room and board total is $3,000 or less.<br>(S11A = S11B and S11A + S11B > or = $3,000) | Student probably split room and board total in two and reported half in S11A and half in S11B. | Set flag. | S11FLAG2 = 9 |

TABLE 4.2 - FLAG RULES FOR S11A AND S11B (AMOUNT FOR FALL TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Term room charge for campus housing residents is less than $300. (F_LIVARR = 3 or 4 and S11A < $300) | Values are very low and may represent student expense per term, net of financial aid and scholarship, or a shorter reporting period. | Set flag. | S11FLAG2 = 10 |
| o Term food charge for campus housing residents is less than $300. (S11B < $300 and F_LIVARR = 3) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S11FLAG2 = 11 |
| o Term food charge for off campus residents is less than $300. (S11B < $300 and F_LIVARR = 1) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S11FLAG2 = 12 |
| o Term food charge for students who live with parents is less than $300. (S11B < $300 and F_LIVARR = 5) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S11FLAG2 = 13 |
| o All others. |  | No flag set. |  |
| o TOTAL |  |  |  |

TABLE 5.1 - FLAG RULES FOR S12A1 (MONTHLY EXPENSES FOR FALL TERM HOUSING NOT PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Student housing residents report monthly housing information. (LIVARR = 3 or 4 and (S12A1 = valid value or S12A2 = valid value)) | Students divide the total term rent paid to the school into the # of months in the term, and report this amount in S12A1 and S12A2. | Set flag. | S12FLAG1 = 1 |
| o Students do not reside with parents or in campus housing, yet pay less than $100 for rent per month. (LIVARR= 1 or 2 and S12A1 < $100) | Values are very low. | Set flag. | S12FLAG1 = 2 |
| o Unmarried students not in campus housing pay more than $800 per month in rent. (TS78 = not married and LIVARR = 1,2,5 or 6 and S12A1 > $800) | Values are very high, may be term values. | Set flag. | S12FLAG1 = 3 |
| o Married students not in campus housing pay more than $1500 per month in rent. (TS78 = married and LIVARR = 1,2, 5 or 6 and S12A1 > $1500) | Values are very high, may be term values. | Set flag. | S12FLAG1 = 4 |
| o All others. |  | No flag set. |  |
| o TOTAL |  |  |  |

TABLE 5.2 - FLAG RULES FOR S12B1 (MONTHLY EXPENSES FOR FALL TERM FOOD NOT PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Term school food charge is more than $300, and additional monthly food cost is more than $200. (S11B > $300 and S12B1 > $200) | Values are very high, given total of S11B and S12B1. May be same information in both places. | Set flag. | S12FLAG2 = 1 |
| o Term school food charge is less than $300, and additional monthly food cost is more than $500. (S11B <or= $300 and S12B1 > $500) | Values are very high. | Set flag. | S12FLAG2 = 2 |
| o Monthly food cost for unmarried students is more than $500, and term school charge is nothing. (TS78 = not married and S11B = 0 and S12B1 > $500) | Values are very high, may be term values. | Set flag. | S12FLAG2 = 3 |
| o Monthly food cost for married students is more than $500, and term school charge is nothing. (TS78 = married and S11B = 0 and S12B1 > $500) | Values are very high, may be term values. | Set flag. | S12FLAG2 = 4 |
| o All others. | | No flag set. | |
| o TOTAL | | | |

TABLE 6.1 - FLAG RULES FOR S41A AND S41B REPORTED AS A TOTAL. (AMOUNT FOR SPRINT TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Student lives in campus housing, yet reports only one amount, either in S41A or in S41B.<br>(S40 = 3 and S41A = valid value and S411FLAG = 1 and S41B = invalid value)<br>or<br>(S40 = 3 and S41A = invalid value and S41B = $200 or more) | Term room and board paid to the school are reported as a total in either S41A or S41B. | Set flag. | S41FLAG1 = 1 |
| o All others. | | No flag set. | |
| o TOTAL | | | |

TABLE 6.2 - FLAG RULES FOR S41A AND S41B (AMOUNT FOR SPRING TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Clerical staff has flagged S41 as a total.<br>(S41FLAG=1) | Food and housing costs were reported as a total. | Set flag. | S41FLAG2 = 1 |
| o Living arrangement could not be determined.<br>(S_LIVARR = 7) | Validity of S41A and S41B is suspect. | Set flag. | S41FLAG2 = 2 |
| o Living arrangement information is inconsistent.<br>(S40 = 3 and S41A = 0 or missing)<br>or<br>(S40 = 1 or 2 and S41A = valid value) | Validity of S41A suspect. | Set flag. | S41FLAG2 = 3<br>or<br>S41FLAG2 = 4 |
| o Total term room and board is more than $3,000, and both are same reported value.<br>(S41A + S41B > $3,000) and (S41A = S41B) | Student probably wrote total in both S41A and S41B. | Set flag. | S41FLAG2 = 5 |
| o Term room charge is more than $3,000, and is not obviously a total of room and board.<br>(S41A > $3,000 and S41B = valid value) | Probably not term information, may be annual, but high even for that. | Set flag. | S41FLAG2 = 6 |
| o Term food charge is more than $3,000, and is not obviously a total of room and board.<br>(S41B > $3,000 and S41A = valid value) | Probably not term information, may be annual, but high even for that. | Set flag. | S41FLAG2 = 7 |
| o Total term room and board is more than $3,000.<br>(S41A + S41B > $3,000) | Probably not term information, but annual. | Set flag. | S41FLAG2 = 8 |
| o Term room charge and term food charge are the same reported value, and room and board total is $3,000 or less.<br>(S41A = S41B and S41A + S41B > or = $3,000) | Student probably split room and board total in two and reported half in S41A and half in S41B. | Set flag. | S41FLAG2 = 9 |

TABLE 6.2 - FLAG RULES FOR S41A AND S41B (AMOUNT FOR SPRING TERM HOUSING AND FOOD PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Term room charge for campus housing residents is less than $300. (S_LIVARR = 3 or 4 and S41A < $300) | Values are very low and may represent student expense per term, net of financial aid and scholarship, or a shorter reporting period. | Set flag. | S41FLAG2 = 10 |
| o Term food charge for campus housing residents is less than $300. (S41B < $300 and S_LIVARR = 3) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S41FLAG2 = 11 |
| o Term food charge for off campus residents is less than $300. (S41B < $300 and S_LIVARR = 1) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S41FLAG2 = 12 |
| o Term food charge for students who live with parents is less than $300. (S41B < $300 and S_LIVARR = 5) | Values are very low and may represent student expense per term, net of financial aid and scholarship, a shorter reporting period, or a real amount for students who take only a small number of their meals on campus. | Set flag. | S41FLAG2 = 13 |
| o All others. |  | No flag set. |  |
| o TOTAL |  |  |  |

TABLE 7.1 - FLAG RULES FOR S42A1 (MONTHLY EXPENSES FOR SPRING TERM HOUSING NOT PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Student housing residents report monthly housing information. (S_LIVARR = 3 or 4 and (S42A1 = valid value or S12A2 = valid value)) | Students divide the total term rent paid to the school into the # of months in the term, and report this amount in S42A1 and S42A2. | Set flag. | S42FLAG1 = 1 |
| o Students do not reside with parents or in campus housing, yet pay less than $100 for rent per month. (S_LIVARR= 1 or 2 and S42A1 < $100) | Values are very low. | Set flag. | S42FLAG1 = 2 |
| o Unmarried students not in campus housing pay more than $800 per month in rent. (TS78 = not married and S_LIVARR = 1,2,5 or 6 and S42A1 > $800) | Values are very high, may be term values. | Set flag. | S42FLAG1 = 3 |
| o Married students not in campus housing pay more than $1500 per month in rent. (TS78 = married and S_LIVARR = 1,2,5 or 6 and S42A1 > $1500) | Values are very high, may be term values. | Set flag. | S42FLAG1 = 4 |
| o All others. |  | No flag set. |  |
| o TOTAL |  |  |  |

TABLE 7.2 - FLAG RULES FOR S42B1 (MONTHLY EXPENSES FOR SPRING TERM FOOD NOT PAID TO THE SCHOOL.)

| DATA PATTERN | INFERENCE | RECOMMENDED ACTION | PROPOSED FLAG VALUE |
|---|---|---|---|
| o Term school food charge is more than $300, and additional monthly food cost is more than $200. (S41B > $300 and S42B1 > $200) | Values are very high, given total of S11B and S12B1. May be same information in both places. | Set flag. | S42FLAG2 = 1 |
| o Term school food charge is less than $300, and additional monthly food cost is more than $500. (S41B <or= $300 and S42B1 > $500) | Values are very high. | Set flag. | S42FLAG2 = 2 |
| o Monthly food cost for unmarried students is more than $500, and term school charge is nothing. (TS7B = not married and S41B = 0 and S42B1 > $500) | Values are very high, may be term values. | Set flag. | S42FLAG2 = 3 |
| o Monthly food cost for married students is more than $500, and term school charge is nothing. (TS7B = married and S41B = 0 and S12B1 > $500) | Values are very high, may be term values. | Set flag. | S42FLAG2 = 4 |
| o All others. | | No flag set. | |
| o TOTAL | | | |

TABLE 8 - MONTHLY RENT EDUCATION EXPENSES COMPARED TO MONTHLY RENT TOTAL

S12A2: PERCENT OF TOTAL N (43176) NONMISSING IS 19%

PORTION OF MONTHLY TOTAL RENT WHICH IS EDUCATION RELATED

| PERCENT | N | % |
|---|---|---|
| < 10 % | 329 | 4.03 |
| 100 % | 5798 | 71.05 |
| > 100 % | 62 | 0.76 |
| ALL OTHERS | 1972 | 24.16 |
| TOTAL | 8161 | 100.00 |

## ATTACHMENT A.1 - WEIGHTED

```
                                         CUMULATIVE    CUMULATIVE
S11FLAG1    FREQUENCY     PERCENT        FREQUENCY      PERCENT
------------------------------------------------------------------
      .      12414037          .                .             .
      1        165390      100.0           165390         100.0
```

```
                                         CUMULATIVE    CUMULATIVE
S11FLAG2    FREQUENCY     PERCENT        FREQUENCY      PERCENT
------------------------------------------------------------------
      .      11483438          .                .             .
      1        165390       15.1           165390          15.1
      2       20091.2        1.8           185482          16.9
      3        241036       22.0           426517          38.9
      5         11570        1.1           438087          40.0
      6       16026.8        1.5           454114          41.4
      7       583.235        0.1           454697          41.5
      8       54641.6        5.0           509339          46.5
      9        122179       11.1           631518          57.6
     10       85560.7        7.8           717079          65.4
     11        141061       12.9           858140          78.3
     12        140413       12.8           998553          91.1
     13       97436.2        8.9          1095989         100.0
```

```
                                         CUMULATIVE    CUMULATIVE
S12FLAG1    FREQUENCY     PERCENT        FREQUENCY      PERCENT
------------------------------------------------------------------
      .      11735218          .                .             .
      1        379176       44.9           379176          44.9
      2        260448       30.9           639623          75.8
      3        127947       15.2           767571          90.9
      4       76638.8        9.1           844210         100.0
```

```
                                         CUMULATIVE    CUMULATIVE
S12FLAG2    FREQUENCY     PERCENT        FREQUENCY      PERCENT
------------------------------------------------------------------
      .      12223086          .                .             .
      1       87747.3       24.6          87747.3          24.6
      2       5943.89        1.7          93691.2          26.3
      3       63919.6       17.9           157611          44.2
      4        198731       55.8           356342         100.0
```

```
                          FALL LIVING/EATING

                                         CUMULATIVE    CUMULATIVE
F_LIVARR    FREQUENCY     PERCENT        FREQUENCY      PERCENT
------------------------------------------------------------------
      1        210917        1.7           210917           1.7
      2       6531407       51.9          6742324          53.6
      3       1185382        9.4          7927706          63.0
      4        944336        7.5          8872041          70.5
      5        119228        0.9          8991269          71.5
      6       3327031       26.4         12318300          97.9
      7       20091.2        0.2         12338392          98.1
      8        241036        1.9         12579427         100.0
```

# ATTACHMENT A.2 - UNWEIGHTED

```
                                       CUMULATIVE    CUMULATIVE
S11FLAG1    FREQUENCY     PERCENT      FREQUENCY      PERCENT
-----------------------------------------------------------------
       .        42479         .              .             .
       1          697     100.0            697         100.0
```

```
                                       CUMULATIVE    CUMULATIVE
S11FLAG2    FREQUENCY     PERCENT      FREQUENCY      PERCENT
-----------------------------------------------------------------
       .        38548         .              .             .
       1          697      15.1            697          15.1
       2           46       1.0            743          16.1
       3         1173      25.3           1916          41.4
       5           63       1.4           1979          42.8
       6           92       2.0           2071          44.7
       7            4       0.1           2075          44.8
       8          301       6.5           2376          51.3
       9          583      12.6           2959          63.9
      10          354       7.6           3313          71.6
      11          580      12.5           3893          84.1
      12          479      10.4           4372          94.5
      13          256       5.5           4628         100.0
```

```
                                       CUMULATIVE    CUMULATIVE
S12FLAG1    FREQUENCY     PERCENT      FREQUENCY      PERCENT
-----------------------------------------------------------------
       .        39977         .              .             .
       1         1655      51.7           1655          51.7
       2          809      25.3           2464          77.0
       3          459      14.3           2923          91.4
       4          276       8.6           3199         100.0
```

```
                                       CUMULATIVE    CUMULATIVE
S12FLAG2    FREQUENCY     PERCENT      FREQUENCY      PERCENT
-----------------------------------------------------------------
       .        41900         .              .             .
       1          404      31.7            404          31.7
       2           16       1.3            420          32.9
       3          226      17.7            646          50.6
       4          630      49.4           1276         100.0
```

```
                              SAS

                       FALL LIVING/EATING

                                       CUMULATIVE    CUMULATIVE
F_LIVARR    FREQUENCY     PERCENT      FREQUENCY      PERCENT
-----------------------------------------------------------------
       1          797       1.8            797           1.8
       2        21437      49.7          22234          51.5
       3         5533      12.8          27767          64.3
       4         4170       9.7          31937          74.0
       5          324       0.8          32261          74.7
       6         9696      22.5          41957          97.2
       7           46       0.1          42003          97.3
       8         1173       2.7          43176         100.0
```

# ATTACHMENT A.3 - WEIGHTED

```
                                           CUMULATIVE   CUMULATIVE
S41FLAG1      FREQUENCY      PERCENT       FREQUENCY      PERCENT
------------------------------------------------------------------
       .        9854944          .              .            .
       1         128852       100.0         128852        100.0


                                           CUMULATIVE   CUMULATIVE
S41FLAG2      FREQUENCY      PERCENT       FREQUENCY      PERCENT
------------------------------------------------------------------
       .        8966222          .              .            .
       1         128852        12.7         128852         12.7
       2        56113.9         5.5         184966         18.2
       3         250870        24.7         435836         42.8
       5        9995.14         1.0         445831         43.8
       6        12666.3         1.2         458497         45.1
       7        455.561         0.0         458953         45.1
       8        43613.2         4.3         502566         49.4
       9         101207         9.9         603773         59.3
      10        80420.5         7.9         684193         67.2
      11         126221        12.4         810414         79.6
      12         112535        11.1         922949         90.7
      13        94624.4         9.3        1017574        100.0


                                           CUMULATIVE   CUMULATIVE
S42FLAG1      FREQUENCY      PERCENT       FREQUENCY      PERCENT
------------------------------------------------------------------
       .        9358140          .              .            .
       1         313863        50.2         313863         50.2
       2         179443        28.7         493306         78.8
       3        84337.4        13.5         577643         92.3
       4        48012.8         7.7         625656        100.0


                                           CUMULATIVE   CUMULATIVE
S42FLAG2      FREQUENCY      PERCENT       FREQUENCY      PERCENT
------------------------------------------------------------------
       .        9722422          .              .            .
       1        67269.9        25.7        67269.9         25.7
       2        5175.82         2.0        72445.7         27.7
       3        46479.5        17.8         118925         45.5
       4         142449        54.5         261374        100.0



                                           CUMULATIVE   CUMULATIVE
S_LIVARR      FREQUENCY      PERCENT       FREQUENCY      PERCENT
------------------------------------------------------------------
       1         163427         1.6         163427          1.6
       2        4904715        49.1        5068142         50.8
       3        1021904        10.2        6090045         61.0
       4         851657         8.5        6941703         69.5
       5         116555         1.2        7058258         70.7
       6        2618555        26.2        9676813         96.9
       7        56113.9         0.6        9732927         97.5
       8         250870         2.5        9983796        100.0
```

# ATTACHMENT A.4 - UNWEIGHTED

```
                                       CUMULATIVE    CUMULATIVE
S41FLAG1    FREQUENCY     PERCENT      FREQUENCY       PERCENT
-----------------------------------------------------------------
    .          35377          .              .              .
    1            553      100.0            553          100.0


                                       CUMULATIVE    CUMULATIVE
S41FLAG2    FREQUENCY     PERCENT      FREQUENCY       PERCENT
-----------------------------------------------------------------
    .          31580          .              .              .
    1            553       12.7            553           12.7
    2            193        4.4            746           17.1
    3           1217       28.0           1963           45.1
    5             54        1.2           2017           46.4
    6             76        1.7           2093           48.1
    7              3        0.1           2096           48.2
    8            237        5.4           2333           53.6
    9            500       11.5           2833           65.1
   10            333        7.7           3166           72.8
   11            523       12.0           3689           84.8
   12            415        9.5           4104           94.3
   13            246        5.7           4350          100.0


                                       CUMULATIVE    CUMULATIVE
S42FLAG1    FREQUENCY     PERCENT      FREQUENCY       PERCENT
-----------------------------------------------------------------
    .          33402          .              .              .
    1           1386       54.8           1386           54.8
    2            591       23.4           1977           78.2
    3            345       13.6           2322           91.9
    4            206        8.1           2528          100.0


                                       CUMULATIVE    CUMULATIVE
S42FLAG2    FREQUENCY     PERCENT      FREQUENCY       PERCENT
-----------------------------------------------------------------
    .          34937          .              .              .
    1            323       32.5            323           32.5
    2             18        1.8            341           34.3
    3            172       17.3            513           51.7
    4            480       48.3            993          100.0



                                       CUMULATIVE    CUMULATIVE
S_LIVARR    FREQUENCY     PERCENT      FREQUENCY       PERCENT
-----------------------------------------------------------------
    1            643        1.8            643            1.8
    2          17128       47.7          17771           49.5
    3           4829       13.4          22600           62.9
    4           3754       10.4          26354           73.3
    5            337        0.9          26691           74.3
    6           7829       21.8          34520           96.1
    7            193        0.5          34713           96.6
    8           1217        3.4          35930          100.0
```

ATTACHMENT B

MONTHLY EDUCATION RENT AS A PERCENT OF TOTAL EDUCATION RENT

| | ALL | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 1 | 21 | 0.26 | . | . | . | . | 6 | 0.13 | 15 | 1.33 | . | . | . | . |
| 2 | 32 | 0.39 | . | . | . | . | 10 | 0.21 | 20 | 1.77 | 2 | 0.48 | . | . |
| 3 | 40 | 0.49 | . | . | . | . | 13 | 0.28 | 25 | 2.21 | . | . | . | . |
| 4 | 42 | 0.51 | 2 | 0.51 | . | . | 18 | 0.38 | 19 | 1.68 | . | . | 1 | 6.25 |
| 5 | 40 | 0.49 | . | . | . | . | 17 | 0.36 | 19 | 1.68 | . | . | . | . |
| 6 | 48 | 0.59 | . | . | 1 | 2.78 | 17 | 0.36 | 27 | 2.39 | . | . | . | . |
| 7 | 38 | 0.47 | 1 | 0.25 | . | . | 11 | 0.24 | 22 | 1.95 | . | . | . | . |
| 8 | 53 | 0.65 | 2 | 0.51 | 1 | 2.78 | 19 | 0.41 | 28 | 2.48 | . | . | . | . |
| 9 | 15 | 0.18 | . | . | . | . | 8 | 0.17 | 5 | 0.44 | . | . | . | . |
| 10 | 72 | 0.88 | . | . | . | . | 31 | 0.66 | 32 | 2.83 | 1 | 0.24 | . | . |
| 11 | 40 | 0.49 | . | . | . | . | 16 | 0.34 | 18 | 1.59 | 1 | 0.24 | 1 | 6.25 |
| 12 | 25 | 0.31 | 1 | 0.25 | 1 | 2.78 | 17 | 0.36 | 4 | 0.35 | 1 | 0.24 | . | . |
| 13 | 70 | 0.86 | 1 | 0.25 | . | . | 31 | 0.66 | 28 | 2.48 | 1 | 0.24 | . | . |
| 14 | 40 | 0.49 | 1 | 0.25 | . | . | 18 | 0.38 | 16 | 1.42 | 1 | 0.24 | . | . |
| 15 | 31 | 0.38 | . | . | . | . | 17 | 0.36 | 7 | 0.62 | 1 | 0.24 | . | . |
| 16 | 14 | 0.17 | 1 | 0.25 | 1 | 2.78 | 5 | 0.11 | 5 | 0.44 | . | . | . | . |
| 17 | 83 | 1.02 | 6 | 1.52 | . | . | 40 | 0.86 | 16 | 1.42 | 2 | 0.48 | . | . |
| 18 | 24 | 0.29 | . | . | . | . | 17 | 0.36 | 6 | 0.53 | . | . | . | . |
| 19 | 17 | 0.21 | . | . | 1 | 2.78 | 10 | 0.21 | 3 | 0.27 | . | . | . | . |

(CONTINUED)

| | ALL | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| RENT TOT/RENTED | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 20 | 106 | 1.30 | 1 | 0.25 | . | . | 53 | 1.13 | 29 | 2.57 | 2 | 0.48 | . | . |
| 21 | 10 | 0.12 | . | . | . | . | 5 | 0.11 | 5 | 0.44 | . | . | . | . |
| 22 | 30 | 0.37 | . | . | . | . | 16 | 0.34 | 9 | 0.80 | . | . | . | . |
| 23 | 18 | 0.22 | . | . | . | . | 11 | 0.24 | 7 | 0.62 | . | . | . | . |
| 24 | 22 | 0.27 | 1 | 0.25 | . | . | 10 | 0.21 | 10 | 0.89 | . | . | . | . |
| 25 | 150 | 1.84 | 3 | 0.76 | . | . | 67 | 1.43 | 41 | 3.63 | 1 | 0.24 | 2 | 12.50 |
| 26 | 8 | 0.10 | . | . | . | . | 5 | 0.11 | 3 | 0.27 | . | . | . | . |
| 27 | 22 | 0.27 | . | . | 1 | 2.78 | 7 | 0.15 | 7 | 0.62 | . | . | . | . |
| 28 | 9 | 0.11 | . | . | . | . | 3 | 0.06 | 3 | 0.27 | . | . | . | . |
| 29 | 39 | 0.48 | 3 | 0.76 | . | . | 20 | 0.43 | 12 | 1.06 | . | . | . | . |
| 30 | 44 | 0.54 | 1 | 0.25 | . | . | 23 | 0.49 | 8 | 0.71 | 1 | 0.24 | . | . |
| 31 | 12 | 0.15 | . | . | . | . | 8 | 0.17 | 2 | 0.18 | 1 | 0.24 | . | . |
| 32 | 11 | 0.13 | . | . | . | . | 6 | 0.13 | 2 | 0.18 | . | . | . | . |
| 33 | 123 | 1.51 | 1 | 0.25 | . | . | 59 | 1.26 | 20 | 1.77 | 4 | 0.95 | . | . |
| 34 | 2 | 0.02 | . | . | . | . | 1 | 0.02 | . | . | . | . | . | . |
| 35 | 10 | 0.12 | . | . | . | . | 6 | 0.13 | 2 | 0.18 | . | . | . | . |
| 36 | 21 | 0.26 | . | . | 1 | 2.78 | 11 | 0.24 | 5 | 0.44 | . | . | . | . |
| 37 | 3 | 0.04 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 38 | 35 | 0.43 | 1 | 0.25 | . | . | 18 | 0.38 | 4 | 0.35 | 1 | 0.24 | . | . |

(CONTINUED)

| RENT TOT/RENTED | ALL | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 39 | 4 | 0.05 | . | . | 1 | 2.78 | 2 | 0.04 | . | . | . | . | . | . |
| 40 | 58 | 0.71 | 1 | 0.25 | . | . | 21 | 0.45 | 7 | 0.62 | 1 | 0.24 | . | . |
| 41 | 4 | 0.05 | . | . | . | . | 4 | 0.09 | . | . | . | . | . | . |
| 42 | 11 | 0.13 | . | . | . | . | 9 | 0.19 | 1 | 0.09 | . | . | . | . |
| 43 | 18 | 0.22 | . | . | . | . | 4 | 0.09 | 4 | 0.35 | 1 | 0.24 | . | . |
| 44 | 8 | 0.10 | . | . | . | . | 4 | 0.09 | 1 | 0.09 | 1 | 0.24 | . | . |
| 45 | 5 | 0.06 | . | . | 1 | 2.78 | 2 | 0.04 | 1 | 0.09 | . | . | . | . |
| 46 | 7 | 0.09 | . | . | . | . | 3 | 0.06 | 4 | 0.35 | . | . | . | . |
| 47 | 7 | 0.09 | . | . | . | . | 6 | 0.13 | 1 | 0.09 | . | . | . | . |
| 48 | 5 | 0.06 | . | . | . | . | 4 | 0.09 | 1 | 0.09 | . | . | . | . |
| 49 | 5 | 0.06 | . | . | . | . | 5 | 0.11 | . | . | . | . | . | . |
| 50 | 270 | 3.31 | 7 | 1.77 | 2 | 5.56 | 110 | 2.35 | 46 | 4.07 | 6 | 1.43 | . | . |
| 51 | 6 | 0.07 | . | . | . | . | 3 | 0.06 | 1 | 0.09 | . | . | . | . |
| 52 | 1 | 0.01 | . | . | . | . | 1 | 0.02 | . | . | . | . | . | . |
| 53 | 11 | 0.13 | 2 | 0.51 | . | . | 3 | 0.06 | 2 | 0.18 | . | . | . | . |
| 54 | 2 | 0.02 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 55 | 6 | 0.07 | 1 | 0.25 | . | . | 2 | 0.04 | 1 | 0.09 | . | . | . | . |
| 56 | 12 | 0.15 | . | . | . | . | 6 | 0.13 | 4 | 0.35 | . | . | . | . |
| 57 | 19 | 0.23 | 1 | 0.25 | . | . | 8 | 0.17 | 4 | 0.35 | 1 | 0.24 | . | . |

(CONTINUED)

| | ALL | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| RENT TOT/RENTED | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 58 | 5 | 0.06 | . | . | . | . | 1 | 0.02 | . | . | . | . | . | . |
| 59 | 4 | 0.05 | . | . | . | . | 3 | 0.06 | . | . | . | . | . | . |
| 60 | 36 | 0.44 | . | . | . | . | 12 | 0.26 | 4 | 0.35 | 3 | 0.72 | . | . |
| 61 | 3 | 0.04 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 62 | 4 | 0.05 | . | . | . | . | 3 | 0.06 | . | . | 1 | 0.24 | . | . |
| 63 | 8 | 0.10 | . | . | . | . | 6 | 0.13 | . | . | . | . | . | . |
| 64 | 2 | 0.02 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 65 | 6 | 0.07 | . | . | . | . | 4 | 0.09 | . | . | . | . | . | . |
| 66 | 1 | 0.01 | . | . | . | . | . | . | . | . | . | . | . | . |
| 67 | 43 | 0.53 | 1 | 0.25 | . | . | 19 | 0.41 | 5 | 0.44 | . | . | . | . |
| 68 | 2 | 0.02 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 69 | 6 | 0.07 | . | . | . | . | 2 | 0.04 | 1 | 0.09 | . | . | . | . |
| 70 | 8 | 0.10 | . | . | . | . | 6 | 0.13 | 1 | 0.09 | . | . | . | . |
| 71 | 14 | 0.17 | 1 | 0.25 | . | . | 8 | 0.17 | . | . | 1 | 0.24 | . | . |
| 72 | 2 | 0.02 | . | . | . | . | 1 | 0.02 | . | . | . | . | . | . |
| 73 | 6 | 0.07 | 1 | 0.25 | . | . | 3 | 0.06 | 1 | 0.09 | . | . | . | . |
| 74 | 7 | 0.09 | . | . | . | . | 5 | 0.11 | . | . | . | . | . | . |
| 75 | 41 | 0.50 | . | . | . | . | 23 | 0.49 | 1 | 0.09 | 2 | 0.48 | 1 | 6.25 |
| 76 | 4 | 0.05 | 1 | 0.25 | . | . | 2 | 0.04 | . | . | . | . | . | . |

(CONTINUED)

| | | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | ALL | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| RENT TOT/RENTED | | | | | | | | | | | | | | |
| 77 | 7 | 0.09 | . | . | . | . | 4 | 0.09 | 1 | 0.09 | . | . | . | . |
| 78 | 4 | 0.05 | . | . | . | . | 3 | 0.06 | . | . | . | . | . | . |
| 79 | 1 | 0.01 | . | . | . | . | . | . | . | . | . | . | . | . |
| 80 | 36 | 0.44 | . | . | 1 | 2.78 | 23 | 0.49 | 3 | 0.27 | 4 | 0.95 | . | . |
| 81 | 3 | 0.04 | . | . | . | . | 3 | 0.06 | . | . | . | . | . | . |
| 82 | 3 | 0.04 | . | . | . | . | 3 | 0.06 | . | . | . | . | . | . |
| 83 | 35 | 0.43 | 3 | 0.76 | . | . | 22 | 0.47 | 1 | 0.09 | 4 | 0.95 | . | . |
| 84 | 4 | 0.05 | . | . | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 85 | 10 | 0.12 | . | . | . | . | 8 | 0.17 | . | . | . | . | . | . |
| 86 | 20 | 0.25 | 3 | 0.76 | . | . | 10 | 0.21 | 2 | 0.18 | 1 | 0.24 | . | . |
| 87 | 10 | 0.12 | 1 | 0.25 | . | . | 4 | 0.09 | 2 | 0.18 | 1 | 0.24 | . | . |
| 88 | 15 | 0.18 | 2 | 0.51 | . | . | 11 | 0.24 | 2 | 0.18 | . | . | . | . |
| 89 | 10 | 0.12 | 1 | 0.25 | . | . | 5 | 0.11 | 3 | 0.27 | . | . | . | . |
| 90 | 11 | 0.13 | 1 | 0.25 | . | . | 8 | 0.17 | 1 | 0.09 | . | . | . | . |
| 91 | 9 | 0.11 | 1 | 0.25 | . | . | 7 | 0.15 | . | . | . | . | . | . |
| 92 | 9 | 0.11 | . | . | . | . | 5 | 0.11 | 2 | 0.18 | . | . | . | . |
| 93 | 9 | 0.11 | 2 | 0.51 | . | . | 4 | 0.09 | 1 | 0.09 | . | . | . | . |
| 94 | 8 | 0.10 | . | . | . | . | 5 | 0.11 | . | . | . | . | . | . |
| 95 | 6 | 0.07 | 1 | 0.25 | . | . | 4 | 0.09 | 1 | 0.09 | . | . | . | . |

(CONTINUED)

| | ALL | | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LIVE OFF/EAT ON | | | | LIVE OFF/EAT OFF | | | | LIVE ON/EAT ON | | | |
| | | | STATUS | | | | STATUS | | | | STATUS | | | |
| | | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| RENT TOT/RENTED | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 96 | 6 | 0.07 | . | . | . | . | 4 | 0.09 | 1 | 0.09 | 1 | 0.24 | . | . |
| 97 | 3 | 0.04 | 1 | 0.25 | . | . | 2 | 0.04 | . | . | . | . | . | . |
| 99 | 1 | 0.01 | . | . | . | . | 1 | 0.02 | . | . | . | . | . | . |
| 100 | 5798 | 71.05 | 336 | 85.06 | 21 | 58.33 | 3552 | 75.93 | 528 | 46.77 | 363 | 86.63 | 11 | 68.75 |
| 101 | 62 | 0.76 | 1 | 0.25 | 3 | 8.33 | 33 | 0.71 | 6 | 0.53 | 8 | 1.91 | . | . |
| ALL | 8161 | 100.00 | 395 | 100.00 | 36 | 100.00 | 4678 | 100.00 | 1129 | 100.00 | 419 | 100.00 | 16 | 100.00 |

(CONTINUED)

| | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 1 | . | . | . | . | . | . | . | . | . | . | . | . |
| 2 | . | . | . | . | . | . | . | . | . | . | . | . |
| 3 | . | . | . | . | . | . | 1 | 11.11 | 1 | 0.19 | . | . |
| 4 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 5 | . | . | . | . | . | . | . | . | 1 | 0.19 | 3 | 1.63 |
| 6 | . | . | . | . | . | . | . | . | 1 | 0.19 | 2 | 1.09 |
| 7 | 1 | 0.16 | . | . | . | . | . | . | 2 | 0.39 | 1 | 0.54 |
| 8 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | 1 | 0.54 |
| 9 | 1 | 0.16 | . | . | . | . | . | . | . | . | 1 | 0.54 |
| 10 | 2 | 0.33 | . | . | . | . | . | . | 4 | 0.78 | 2 | 1.09 |
| 11 | . | . | . | . | . | . | . | . | 3 | 0.58 | 1 | 0.54 |
| 12 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 13 | . | . | 1 | 1.75 | . | . | 1 | 11.11 | 5 | 0.97 | 2 | 1.09 |
| 14 | 3 | 0.49 | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 15 | . | . | . | . | . | . | . | . | 2 | 0.39 | 4 | 2.17 |
| 16 | . | . | . | . | . | . | . | . | 2 | 0.39 | . | . |
| 17 | . | . | . | . | . | . | . | . | 8 | 1.55 | 10 | 5.43 |
| 18 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 19 | 1 | 0.16 | . | . | . | . | . | . | 2 | 0.39 | . | . |

(CONTINUED)

| | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| RENT TOT/RENTED | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 20 | . | . | 1 | 1.75 | . | . | . | . | 6 | 1.16 | 14 | 7.61 |
| 21 | . | . | . | . | . | . | . | . | . | . | . | . |
| 22 | 1 | 0.16 | 1 | 1.75 | . | . | . | . | 2 | 0.39 | 1 | 0.54 |
| 23 | . | . | . | . | . | . | . | . | . | . | . | . |
| 24 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 25 | . | . | . | . | 2 | 7.14 | . | . | 24 | 4.65 | 9 | 4.89 |
| 26 | . | . | . | . | . | . | . | . | . | . | . | . |
| 27 | . | . | . | . | . | . | . | . | 3 | 0.58 | 4 | 2.17 |
| 28 | . | . | . | . | . | . | . | . | 2 | 0.39 | 1 | 0.54 |
| 29 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | 2 | 1.09 |
| 30 | . | . | . | . | . | . | . | . | 9 | 1.74 | 2 | 1.09 |
| 31 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 32 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | 1 | 0.54 |
| 33 | 2 | 0.33 | 1 | 1.75 | . | . | . | . | 26 | 5.04 | 9 | 4.89 |
| 34 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 35 | . | . | . | . | 1 | 3.57 | . | . | . | . | 1 | 0.54 |
| 36 | . | . | . | . | . | . | . | . | 4 | 0.78 | . | . |
| 37 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 38 | . | . | . | . | . | . | . | . | 7 | 1.36 | 4 | 2.17 |

(CONTINUED)

| | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| RENT TOT/RENTED | | | | | | | | | | | | |
| 39 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 40 | 1 | 0.16 | . | . | . | . | . | . | 19 | 3.68 | 7 | 3.80 |
| 41 | . | . | . | . | . | . | . | . | . | . | . | . |
| 42 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 43 | . | . | . | . | . | . | . | . | 8 | 1.55 | 1 | 0.54 |
| 44 | . | . | . | . | . | . | . | . | 2 | 0.39 | . | . |
| 45 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 46 | . | . | . | . | . | . | . | . | . | . | . | . |
| 47 | . | . | . | . | . | . | . | . | . | . | . | . |
| 48 | . | . | . | . | . | . | . | . | . | . | . | . |
| 49 | . | . | . | . | . | . | . | . | . | . | . | . |
| 50 | 5 | 0.82 | . | . | 2 | 7.14 | 1 | 11.11 | 70 | 13.57 | 20 | 10.87 |
| 51 | . | . | . | . | . | . | . | . | 2 | 0.39 | . | . |
| 52 | . | . | . | . | . | . | . | . | . | . | . | . |
| 53 | 1 | 0.16 | . | . | . | . | . | . | 2 | 0.39 | 1 | 0.54 |
| 54 | . | . | . | . | . | . | . | . | . | . | . | . |
| 55 | . | . | 1 | 1.75 | . | . | . | . | 1 | 0.19 | . | . |
| 56 | . | . | . | . | . | . | . | . | 2 | 0.39 | . | . |
| 57 | . | . | . | . | . | . | . | . | 4 | 0.78 | 1 | 0.54 |

(CONTINUED)

| | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| RENT TOT/RENTED | | | | | | | | | | | | |
| 58 | . | . | . | . | . | . | . | . | 3 | 0.58 | 1 | 0.54 |
| 59 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 60 | 1 | 0.16 | 1 | 1.75 | 2 | 7.14 | . | . | 10 | 1.94 | 3 | 1.63 |
| 61 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 62 | . | . | . | . | . | . | . | . | . | . | . | . |
| 63 | . | . | . | . | . | . | . | . | 2 | 0.39 | . | . |
| 64 | . | . | . | . | . | . | . | . | . | . | . | . |
| 65 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 66 | . | . | . | . | 1 | 3.57 | . | . | . | . | . | . |
| 67 | 2 | 0.33 | . | . | 1 | 3.57 | . | . | 13 | 2.52 | 2 | 1.09 |
| 68 | . | . | . | . | . | . | . | . | . | . | . | . |
| 69 | 2 | 0.33 | . | . | . | . | . | . | . | . | 1 | 0.54 |
| 70 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 71 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | 2 | 1.09 |
| 72 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 73 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 74 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 75 | 2 | 0.33 | . | . | 3 | 10.71 | . | . | 7 | 1.36 | . | . |
| 76 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |

(CONTINUED)

| RENT TOT/RENTED | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 77 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 78 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 79 | . | . | . | . | . | . | . | . | . | . | 1 | 0.54 |
| 80 | . | . | . | . | 2 | 7.14 | 1 | 11.11 | 1 | 0.19 | 1 | 0.54 |
| 81 | . | . | . | . | . | . | . | . | . | . | . | . |
| 82 | . | . | . | . | . | . | . | . | . | . | . | . |
| 83 | 3 | 0.49 | . | . | . | . | . | . | 1 | 0.19 | 1 | 0.54 |
| 84 | 2 | 0.33 | . | . | . | . | . | . | . | . | . | . |
| 85 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 86 | 4 | 0.66 | . | . | . | . | . | . | . | . | . | . |
| 87 | 2 | 0.33 | . | . | . | . | . | . | . | . | . | . |
| 88 | . | . | . | . | . | . | . | . | . | . | . | . |
| 89 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 90 | . | . | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 91 | 1 | 0.16 | . | . | . | . | . | . | . | . | . | . |
| 92 | 1 | 0.16 | 1 | 1.75 | . | . | . | . | . | . | . | . |
| 93 | 1 | 0.16 | . | . | . | . | . | . | 1 | 0.19 | . | . |
| 94 | 3 | 0.49 | . | . | . | . | . | . | . | . | . | . |
| 95 | . | . | . | . | . | . | . | . | . | . | . | . |

(CONTINUED)

| RENT TOT/RENTED | FALL LIVING/EATING | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LIVE ON/EAT OFF | | | | WITH PARS/EAT ON | | | | WITH PARS/EAT OFF | | | |
| | STATUS | | | | STATUS | | | | STATUS | | | |
| | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | | FULL - TIME | | PART- TIME | |
| | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT | COUNT | PERCENT |
| 96 | . | . | . | . | . | . | . | . | . | . | . | . |
| 97 | . | . | . | . | . | . | . | . | . | . | . | . |
| 99 | . | . | . | . | . | . | . | . | . | . | . | . |
| 100 | 548 | 89.84 | 50 | 87.72 | 13 | 46.43 | 4 | 44.44 | 233 | 45.16 | 66 | 35.87 |
| 101 | 5 | 0.82 | . | . | 1 | 3.57 | 1 | 11.11 | 2 | 0.39 | 1 | 0.54 |
| ALL | 610 | 100.00 | 57 | 100.00 | 28 | 100.00 | 9 | 100.00 | 516 | 100.00 | 184 | 100.00 |

# APPENDIX D

# IMPUTATION FOR RECORDS ABSTRACT FILE

**WESTAT**
An Employee-Owned Research Corporation
*1650 Research Blvd. • Rockville, MD. 20850 • (301) 251-1500*

# MEMORANDUM

**TO:** Jerry Malitz December 6, 1988

**FROM:** Mike Brick

**SUBJECT:** Revised Imputation for Records Abstract Data

On November 11, 1988 we submitted a report on the imputation for about 40 variables from the Records Abstract file. For some items, especially those items that were only reported on the Records Abstract file for aided students, the base for imputation was very limited. As a result, the imputation for these items was considered to be subject to potentially large biases and could result in improper inferences for many analyses.

After NCES review of this report, you requested that we make several changes in the imputation in preparation for releasing the imputed values on the public release data file. The biggest change was removing the imputed variables for nearly all of the items which were only reported for aided students. In all the number of imputed variables was reduced from about 40 to 14. The variables that were removed were those that were most likely to result in misleading uses of the data.

Changes were also made in two of the imputed variables. For the variable R21A (student level), rules specified by NCES were followed for the direct imputation of the variable. These rules extended the direct imputation slightly beyond what was originally used in the imputation. The new imputation specification resulted in a skip pattern for this item; the value for R21A is missing unless R19=1 under the new scheme. Under the old imputation scheme this variable was imputed for all 59,886 students.

The other variable changed was R25 (dependency status). The new NCES specifications for the direct imputation of this variable resulted in substantial changes in the values imputed. As a result of these changes in the imputed values, a new set of hot deck imputation runs was applied to produce an internally consistent imputed variable.

We have attached a new table summarizing the imputation for the 14 variables that will be on the public release file. A new Appendix containing the description of the imputation scheme for each variable is also attached. This Appendix reflects the changes that were made in the imputation scheme for variable R21A and R25. Note that the typographical error in the Appendix in RHSDEGRE has been corrected.

Summary statistics on the imputation of Records items.

| | | Before imputation | | | Number imputed by | |
|---|---|---|---|---|---|---|
| Variable | Total | Non-missing | Missing | Percent missing | Direct imputation | Hot-deck |
| RSEX | 59,886 | 58,277 | 1,609 | 3% | 1,038 | 571 |
| RDOBYR | 59,886 | 57,903 | 1,983 | 3 | 1,228 | 755 |
| R14 (RACE) | 59,886 | 41,191 | 18,695 | 31 | 12,504 | 6,191 |
| R15 (CITIZENSHIP) | 59,886 | 51,639 | 8,247 | 14 | 5,053 | 3,194 |
| R17 (RESIDENCE) | 59,886 | 37,700 | 22,186 | 37 | 15,329 | 6,857 |
| R18 (TUITION) | 59,886 | 57,577 | 2,309 | 4 | 0 | 2,309 |
| R21A (LEVEL) | 54,675 | 53,326 | 1,349 | 2 | 897 | 452 |
| R21B (CREDIT HRS) | 54,675 | 48,560 | 6,115 | 11 | 0 | 6,115 |
| R19 (CLOCK/CREDIT) | 59,886 | 59,146 | 740 | 1 | 204 | 536 |
| R20C_1 (HRS/WEEK) | 5,211 | 4,781 | 430 | 8 | 95 | 335 |
| R22 (FULLTIME) | 59,886 | 57,225 | 2,661 | 4 | 0 | 2,661 |
| R24 (MARITAL STATUS) | 59,886 | 28,574 | 31,312 | 52 | 21,690 | 9,622 |
| R25 (DEPENDENCY) | 59,886 | 27,369 | 32,517 | 54 | 21,653 | 10,864 |
| RHSDEGRE | 59,886 | 32,240 | 27,646 | 46 | 18,385 | 9,261 |

**VARIABLE NAME:** RSEX **IMPUTED VARIABLE NAME:** ISEX
**DESCRIPTION:** Sex of Student
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 58,277 |
| Number eligible for imputation: | 1,609 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S75 (Gender)
S37 (CIP codes for Student's Current Program)
S43 (CIP codes for Student's Program in Fall)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S75): 1,038

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| *2. | School | |
| 3. | IDOBYEAR | (Date of Birth (Year) ) |
| 4. | S3 | (Level) |
| 5. | S1(d) | (Keeping house) |
| 6. | R21FCDE | (CIP code for student's Field of Study) |

*NO BREAK

Number imputed by Hotdeck imputations: 571

**POST ANALYSIS:**

SEX OF STUDENT

| | RSEX | | ISEX | |
|---|---|---|---|---|
| | Before imputation | | After imputation | |
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 5598513 | 44.5 | 5743347 | 45.7 |
| 2 | 6655937 | 52.9 | 6836397 | 54.3 |
| 9 | 325294 | 2.6 | -- | -- |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** RDOBYEAR **IMPUTED VARIABLE NAME:** IDOBYEAR
**DESCRIPTION:** Date of Birth (Year)
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 57903 |
| Number eligible for imputation: | 1,983 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S74YEAR (Date of Birth)
S3 (Level in school last fall)
S85 (Year started education after high school) S83B (Year received HS diploma)
R21A (Student academic level on credit hr basis)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S74YEAR): 1,228

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| * 2. | School | |
| 3. | S83B | (Year received high school diploma) |
| 4. | S3 | (Level in school last fall) |
| 5. | R21A | (Student's Academic level on a Credit Hour Basis) |
| 6. | S85 | (Year started education after high school) |
| 7. | RSEX | (Sex of Student) |

*NO BREAK

Number imputed by Hotdeck imputations: 755

**POST ANALYSIS:**

DATE OF BIRTH: YEAR

| VALUE | RDOBYEAR Before Imputation FREQUENCY | RDOBYEAR Before Imputation PERCENT | IDOBYEAR After Imputation FREQUENCY | IDOBYEAR After Imputation PERCENT |
|---|---|---|---|---|
| 00 | 633.571 | 0.0 | 633.571 | 0.0 |
| 01 | 1750.58 | 0.0 | 1750.58 | 0.0 |
| 03 | 714.393 | 0.0 | 714.393 | 0.0 |
| 04 | 1435.94 | 0.0 | 1435.94 | 0.0 |
| 05 | 2296.81 | 0.0 | 2296.81 | 0.0 |
| 06 | 2216.67 | 0.0 | 2216.67 | 0.0 |
| 07 | 941.022 | 0.0 | 1191.22 | 0.0 |
| 08 | 851.793 | 0.0 | 851.793 | 0.0 |
| 09 | 717.715 | 0.0 | 717.715 | 0.0 |
| 10 | 1095.54 | 0.0 | 1095.54 | 0.0 |
| 11 | 1476.27 | 0.0 | 5789.44 | 0.0 |
| 12 | 717.972 | 0.0 | 948.357 | 0.0 |
| 13 | 4565.15 | 0.0 | 4565.15 | 0.0 |

| | | | | |
|---|---|---|---|---|
| 14 | 4035.84 | 0.0 | 4035.84 | 0.0 |
| 15 | 2888.55 | 0.0 | 3119.09 | 0.0 |
| 16 | 4026.2 | 0.0 | 4026.2 | 0.0 |
| 17 | 4111.11 | 0.0 | 4111.11 | 0.0 |
| 18 | 5087.24 | 0.0 | 5185.77 | 0.0 |
| 19 | 4400.29 | 0.0 | 4498.82 | 0.0 |
| 20 | 9083.31 | 0.1 | 9312.73 | 0.1 |
| 21 | 5689.87 | 0.0 | 5689.87 | 0.0 |
| 22 | 5442.6 | 0.0 | 5442.6 | 0.0 |
| 23 | 10816 | 0.1 | 11635 | 0.1 |
| 24 | 8017.1 | 0.1 | 8204.22 | 0.1 |
| 25 | 7826.94 | 0.1 | 8731.26 | 0.1 |
| 26 | 10013.9 | 0.1 | 10013.9 | 0.1 |
| 27 | 8837.02 | 0.1 | 9946.94 | 0.1 |
| 28 | 11661.1 | 0.1 | 11822.9 | 0.1 |
| 29 | 10728.8 | 0.1 | 11015.3 | 0.1 |
| 30 | 15002.3 | 0.1 | 15763.9 | 0.1 |
| 31 | 23578.9 | 0.2 | 24117.1 | 0.2 |
| 32 | 25465.4 | 0.2 | 25752.2 | 0.2 |
| 33 | 20245 | 0.2 | 20627.9 | 0.2 |
| 34 | 30750.6 | 0.2 | 31943.1 | 0.3 |
| 35 | 30770 | 0.2 | 31198.1 | 0.2 |
| 36 | 33080.4 | 0.3 | 34994.6 | 0.3 |
| 37 | 43149.9 | 0.3 | 44822.6 | 0.4 |
| 38 | 41896.5 | 0.3 | 45318.8 | 0.4 |
| 39 | 63572.8 | 0.5 | 65679.8 | 0.5 |
| 40 | 61760.5 | 0.5 | 63967.1 | 0.5 |
| 41 | 60508.4 | 0.5 | 61741.1 | 0.5 |
| 42 | 88778.9 | 0.7 | 91365.1 | 0.7 |
| 43 | 87220.6 | 0.7 | 93330.9 | 0.7 |
| 44 | 92849.2 | 0.7 | 95514 | 0.8 |
| 45 | 101978 | 0.8 | 106888 | 0.8 |
| 46 | 120240 | 1.0 | 126299 | 1.0 |
| 47 | 142942 | 1.1 | 150728 | 1.2 |
| 48 | 164675 | 1.3 | 170239 | 1.4 |
| 49 | 156052 | 1.2 | 163472 | 1.3 |
| 50 | 159766 | 1.3 | 166117 | 1.3 |
| 51 | 173602 | 1.4 | 181580 | 1.4 |
| 52 | 197565 | 1.6 | 209837 | 1.7 |
| 53 | 216292 | 1.7 | 225312 | 1.8 |
| 54 | 225293 | 1.8 | 234007 | 1.9 |
| 55 | 261935 | 2.1 | 270934 | 2.2 |
| 56 | 274837 | 2.2 | 283725 | 2.3 |
| 57 | 296616 | 2.4 | 306483 | 2.4 |
| 58 | 311503 | 2.5 | 327453 | 2.6 |
| 59 | 348673 | 2.8 | 360205 | 2.9 |
| 60 | 390219 | 3.1 | 404761 | 3.2 |
| 61 | 452810 | 3.6 | 468980 | 3.7 |
| 62 | 568052 | 4.5 | 582265 | 4.6 |
| 63 | 652703 | 5.2 | 666660 | 5.3 |
| 64 | 921958 | 7.3 | 939202 | 7.5 |
| 65 | 1205103 | 9.6 | 1226935 | 9.8 |
| 66 | 1286473 | 10.2 | 1309595 | 10.4 |
| 67 | 1473074 | 11.7 | 1499958 | 11.9 |

| | | | | |
|---|---|---|---|---|
| 68 | 1212872 | 9.6 | 1238154 | 9.8 |
| 69 | 63601.9 | 0.5 | 65216.1 | 0.5 |
| 70 | 7037.32 | 0.1 | 7130.6 | 0.1 |
| 71 | 475.323 | 0.0 | 475.323 | 0.0 |
| 99 | 342688 | 2.7 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R14 **IMPUTED VARIABLE NAME:** I14
**DESCRIPTION:** Race/Ethnicity
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 41,191 |
| Number eligible for imputation: | 18,695 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
P4A (Race of Parent)
P4AOTHER (Other Race)
S76 (Race of student)
S77 (Ethnic Descent of student)

**DIRECT IMPUTATION:**

Number directly imputed from Parent Questionnaire (P4A, P5A):357
Number directly imputed from Student Questionnaire (S76,S77):12,147

The following procedures were followed to determine I14 from variables in the Student and Parent Questionnaires:
If S76=1 then I14=1
If S76=2 then I14=2
If S76=3 and S77 was in the range 05-12 then I14=3
If S77 was in the range 01-04 then I14=4
If S76=4 and S77 was in the range 05-12 then I14=5
Similar procedures were followed for the Parent Questionnaire; however, P4A (Race of Parent) was substituted for S76 and P5A (Ethnic Descent of Parent) was substituted for S77.

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| * 1. | Stratum | |
| 2. | School | |
| 3. | R21FCDE | (CIP Code for Student's Field of Study) |
| 4. | IDOBYEAR | (Date of Birth (Year) ) |
| 5. | ISEX | (Sex of Student) |

*NO BREAK

Number imputed by Hotdeck Imputations: 6,191

**POST ANALYSIS:**

RACE/ETHNICITY

| | R14 Before Imputation | | I14 After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 110460 | 0.9 | 136310 | 1.1 |
| 2 | 496170 | 3.9 | 679456 | 5.4 |
| 3 | 881428 | 7.0 | 1165641 | 9.3 |
| 4 | 510055 | 4.1 | 749912 | 6.0 |
| 5 | 7464007 | 59.3 | 9848425 | 78.3 |
| 9 | 3117624 | 24.8 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R15 **IMPUTED VARIABLE NAME:** I15
**DESCRIPTION:** Student's Citizenship
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 51,639 |
| Number eligible for imputation: | 8,247 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S80 (Student Citizenship)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S80): 5,053

Direct imputation only occurred when S80 = 1, at which time I15 also became 1.

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| * 1. | Stratum | |
| 2. | School | |
| 3. | I21A | (Student Academic Level on Credit Hour Basis) |
| 4. | I14 | (Race/Ethnicity) |
| 5. | IDOBYEAR | (Date of Birth (Year) ) |
| 6. | ISEX | (Sex of Student) |

*NO BREAK

Number imputed by Hotdeck imputations: 3,194

**POST ANALYSIS:**

STUDENT'S CITIZENSHIP

| | R15<br>Before Imputation | | I15<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 10275401 | 81.7 | 11916522 | 94.7 |
| 2 | 436295 | 3.5 | 460871 | 3.7 |
| 3 | 191737 | 1.5 | 202351 | 1.6 |
| 9 | 1676311 | 13.3 | -- | -- |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R17 **IMPUTED VARIABLE NAME:** I17
**DESCRIPTION:** Local Residence
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 37,700 |
| Number eligible for imputation: | 22,186 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S10 (Student's Fall Residency)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S10): 15,329

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| * 1. | Stratum | |
| 2. | School | |
| 3. | I21A | (Student Academic Level on a Credit Hour Basis) |
| 4. | IDOBYEAR | (Date of Birth (Year) ) |
| 5. | S10 | (Student's fall residence) |
| 6. | S12(a) | (Rent or Mortgage expenses) |
| 7. | S40 | (Student's current residence |
| 8. | ISEX | (Sex of Student) |

*NO BREAK

Number imputed by Hotdeck Imputations: 6,857

**POST ANALYSIS:**

LOCAL RESIDENCE

| | R17<br>Before Imputation | | I17<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 1854588 | 14.7 | 2327277 | 18.5 |
| 2 | 3499045 | 27.8 | 7027824 | 55.9 |
| 3 | 1541023 | 12.3 | 3224643 | 25.6 |
| 9 | 5685088 | 45.2 | -- | -- |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R18 **IMPUTED VARIABLE NAME:** I18
**DESCRIPTION:** Total Tuition/Fees Before Discount/Allowances
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 57,577 |
| Number eligible for imputation: | 2,309 |
| Number not eligible for imputation: | (N/A) |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Plots of the following variables were performed (full time and part time were plotted separately):
R18 vs. S7 (Student Tuition and Fees)
R18 vs. P9A (Tuition and Fees paid by parent)
R18 vs. S7+P9A
S7 vs. P9A
Frequency tables were run, separately for values in the variable
R22 (Full or Part time)
Frequencies were run of existing/nonexisting value combinations for:
S7 (Tuition and Fees) and
P9AVALID (Tuition and Fees)
Regression of Q18VALID vs S7 & P9AVALID (Q18VALID = $\alpha$S7 + $\beta$P9AVALID)
Regressions and plots were produced for the following cases:
S7 = N, P9AVALID = Y
S7 = Y, P9AVALID = N
S7 = Y, P9AVALID = Y
I) DEP. = Q18VALID
INDEP. = P9AVALID
II) DEP. = Q18VALID
INDEP. = S7
III) DEP. = Q18VALID
INDEP. = P9AVALID, S7

**DIRECT IMPUTATION:**

No direct imputation

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| * 2. | School | |
| 3. | S7 or P9A | Created a new variable, S7, (by adding S7A and S7B), and selected it if a value existed. Otherwise P9A value was selected for the sort. This new variable was divided by 200 and rounded off to the nearest integer. |
| 4. | I21A | (Student Academic Level on a Credit Hour Basis) |
| 5. | I16 | (Imputed Jurisdiction) |

*NO BREAK

Number imputed by Hotdeck imputations: 2,309

**POST ANALYSIS:**

### TOTAL TUITION/FEES BEFORE DISCOUNT/ALLOWANCES

| | R18<br>Before Imputation | | I18<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 0 | 41539.4 | 0.3 | 43324 | 0.3 |
| 1-999 | 8342408 | 66.3 | 8562080 | 68.1 |
| 1000-1999 | 1288665 | 10.2 | 1339481 | 10.6 |
| 2000-2999 | 806976 | 6.4 | 833556 | 6.6 |
| 3000-3999 | 524412 | 4.2 | 542656 | 4.3 |
| 4000-4999 | 410201 | 3.3 | 419132 | 3.3 |
| 5000-9999 | 652404 | 5.2 | 709908 | 5.6 |
| 10000-29000 | 106354 | 0.8 | 129608 | 1.0 |
| 999999 | 406785 | 3.2 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R21A **IMPUTED VARIABLE NAME:** I21A
**DESCRIPTION:** Student Academic Level on Credit Hour Basis
**CASES ELIGIBLE FOR IMPUTATION:** All cases with R19=1 and without valid values for R21A

| | |
|---|---|
| Number with valid responses: | 53,326 |
| Number eligible for imputation: | 1,349 |
| Number not eligible for imputation: | 5,211 |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S3 (Level in School last fall)
S4 (For which degree were your fall courses)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S3, S4):897

The following procedures were followed to directly impute I21A from variables in the Student Questionnaires:
The variables used for direct imputation were S3 and S4.
If S3=1 then I21A=1
If S3=2,3,4 or 5 then I21A=2
If S4=6 then R21A=4
If S4=7 then R21A=5
If S4=8 then R21A=3
If S4=9,10 or 11 then R21A=6

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| 2. | School | |
| 3. | IDOBYEAR | (Imputed Date of Birth (Year) ) |
| *4. | S3 | (Level last fall) |
| 5. | S4 | (Which degree/certificate were course leading to) |
| 6. | S8 | (Length of study) |
| 7. | S5YEAR | (Year expected to obtain degree) |
| 8. | ISEX | (Imputed Student Sex) |

*NO BREAK

Number imputed by Hotdeck imputations: 452

**POST ANALYSIS:**

STUDENT ACADEMIC LEVEL ON CREDIT HOUR BASIS

| | R21A<br>Before Imputation | | I21A<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| | 561187 | | 574176 | |
| 1 | 3448554 | 28.7 | 3535947 | 29.5 |
| 2 | 6900716 | 57.4 | 7044784 | 58.7 |
| 3 | 293256 | 2.4 | 294881 | 2.5 |
| 4 | 722207 | 6.0 | 740955 | 6.2 |

| | | | | |
|---|---|---|---|---|
| 5 | 148868 | 1.2 | 153663 | 1.3 |
| 6 | 208682 | 1.7 | 235337 | 2.0 |
| 9 | 296273 | 2.5 | – | – |
| TOTAL | 12018557 | 100.0 | 12005568 | 100.0 |

**VARIABLE NAME:** R21B **IMPUTED VARIABLE NAME:** I21B
**DESCRIPTION:** # of Credit Hours Student Enrolled In
**CASES ELIGIBLE FOR IMPUTATION:** All credit hour students (I19=1) without valid values for R21B

| | |
|---|---|
| Number with valid responses: | 48,560 |
| Number eligible for imputation: | 6,115 |
| Number not eligible for imputation: | 5,211 |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

CREDSYS was recoded as CREDSYS2 and assigned a 1 if stratum <8 otherwise CREDSYS2 was assigned a 2

**DIRECT IMPUTATION:**

No direct imputation

**HOTDECK IMPUTATION:**

Sort by:

1. Stratum
*2. R21B CREDSYS2 (Recoded to CREDSYS2)
3. I21A (Level: Recoded as 1,2,6=1; 4,5=2; 3=3)
4. R22 (Full time/Part time)

*NO BREAK

Number imputed by Hotdeck imputations: 6,115

**POST ANALYSIS:**

# OF CREDIT HOURS STUDENT ENROLLED IN

| | R21B | | I21B | |
|---|---|---|---|---|
| | Before Imputation | | After Imputation | |
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 561187 | . | | 574176 | . |
| 0 | 78197.4 | 0.7 | – | – |
| 1 | 187490 | 1.6 | 228312 | 1.9 |
| 2 | 189469 | 1.6 | 303832 | 2.5 |
| 3 | 1411752 | 11.7 | 1569788 | 13.1 |
| 4 | 478783 | 4.0 | 411270 | 3.4 |
| 5 | 239022 | 2.0 | 277737 | 2.3 |
| 6 | 879321 | 7.3 | 945668 | 7.9 |
| 7 | 235875 | 2.0 | 369237 | 3.1 |
| 8 | 264040 | 2.2 | 495205 | 4.1 |
| 9 | 528916 | 4.4 | 858850 | 7.2 |
| 10 | 325459 | 2.7 | 541887 | 4.5 |
| 11 | 199287 | 1.7 | 534573 | 4.5 |
| 12 | 1398531 | 11.6 | 1300311 | 10.8 |
| 13 | 728083 | 6.1 | 674344 | 5.6 |
| 14 | 669226 | 5.6 | 557899 | 4.6 |
| 15 | 1349101 | 11.2 | 1183833 | 9.9 |
| 16 | 930469 | 7.7 | 776026 | 6.5 |
| 17 | 440637 | 3.7 | 354936 | 3.0 |

| | | | | |
|---|---|---|---|---|
| 18 | 417677 | 3.5 | 353577 | 2.9 |
| 19 | 132530 | 1.1 | 106542 | 0.9 |
| 20 | 81301.6 | 0.7 | 54094.1 | 0.5 |
| 21 | 44243.5 | 0.4 | 34517 | 0.3 |
| 22 | 17198.4 | 0.1 | 11312.2 | 0.1 |
| 23 | 11874.2 | 0.1 | 7068.98 | 0.1 |
| 24 | 23651.2 | 0.2 | 6308.06 | 0.1 |
| 25 | 12890.8 | 0.1 | 4140.03 | 0.0 |
| 26 | 7281.64 | 0.1 | 4137.12 | 0.0 |
| 27 | 7112.69 | 0.1 | 6139 | 0.1 |
| 28 | 1159.29 | 0.0 | 302.617 | 0.0 |
| 29 | 1653.57 | 0.0 | 1663.24 | 0.0 |
| 30 | 24667.9 | 0.2 | 22298.6 | 0.2 |
| 31 | 2118.08 | 0.0 | 2703.28 | 0.0 |
| 32 | 691.354 | 0.0 | 684.934 | 0.0 |
| 33 | 1448.49 | 0.0 | 1008.03 | 0.0 |
| 34 | 2471.66 | 0.0 | 966.75 | 0.0 |
| 35 | 571.415 | 0.0 | 145.573 | 0.0 |
| 36 | 6443.72 | 0.1 | 1577.38 | 0.0 |
| 37 | 898.709 | 0.0 | 281.837 | 0.0 |
| 38 | 1796.04 | 0.0 | 405.348 | 0.0 |
| 39 | 1373.13 | 0.0 | | |
| 40 | 2519.81 | 0.0 | | |
| 41 | 1007.77 | 0.0 | | |
| 42 | 897.477 | 0.0 | | |
| 43 | 547.778 | 0.0 | | |
| 44 | 1021.09 | 0.0 | | |
| 45 | 2889.45 | 0.0 | | |
| 46 | 1498.98 | 0.0 | | |
| 47 | 1373.19 | 0.0 | | |
| 48 | 2424.6 | 0.0 | | |
| 49 | 386.881 | 0.0 | | |
| 50 | 1614.98 | 0.0 | | |
| 51 | 1687.3 | 0.0 | | |
| 52 | 778.074 | 0.0 | | |
| 53 | 1146.01 | 0.0 | | |
| 54 | 843.159 | 0.0 | | |
| 55 | 5167.6 | 0.0 | | |
| 56 | 1394.7 | 0.0 | | |
| 57 | 305.746 | 0.0 | | |
| 58 | 1006.86 | 0.0 | | |
| 60 | 4623.68 | 0.0 | | |
| 61 | 953.478 | 0.0 | | |
| 62 | 1379.44 | 0.0 | | |
| 63 | 281.837 | 0.0 | | |
| 64 | 32.465 | 0.0 | | |
| 65 | 776.966 | 0.0 | | |
| 66 | 999.884 | 0.0 | | |
| 67 | 80.964 | 0.0 | | |
| 68 | 465.107 | 0.0 | | |
| 69 | 717.282 | 0.0 | | |
| 70 | 514.146 | 0.0 | | |
| 71 | 229.77 | 0.0 | | |
| 72 | 221.744 | 0.0 | | |

| | | | | |
|---|---|---|---|---|
| 73 | 82.362 | 0.0 | | |
| 75 | 1076.26 | 0.0 | | |
| 76 | 281.837 | 0.0 | | |
| 77 | 103 | 0.0 | | |
| 78 | 799.621 | 0.0 | | |
| 79 | 372.444 | 0.0 | | |
| 80 | 742.913 | 0.0 | | |
| 83 | 618 | 0.0 | | |
| 84 | 761.238 | 0.0 | | |
| 86 | 1274.46 | 0.0 | | |
| 88 | 90.171 | 0.0 | | |
| 89 | 758.463 | 0.0 | | |
| 90 | 1668.55 | 0.0 | | |
| 91 | 717.11 | 0.0 | | |
| 95 | 890.329 | 0.0 | | |
| 96 | 489.557 | 0.0 | | |
| 97 | 281.837 | 0.0 | | |
| 98 | 1133.15 | 0.0 | | |
| 99 | 631914 | 5.3 | | |
| TOTAL | 12018557 | 100.0 | 12005568 | 100.0 |

**VARIABLE NAME:** R19 **IMPUTED VARIABLE NAME:** I19
**DESCRIPTION:** Type of Enrollment
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 59,146 |
| Number eligible for imputation: | 740 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S2B (Number of credit hours taken last fall)
S2A (How many courses taken last fall)
S2B categories: none, 01-38,99, out of range
S2C (If no cred hours of instruction, # hrs wkly)
For R19 code=2 or 3, Cross tab was done for (R20C_2+R20C_1) with S2C.
(R20C_2=Number of hours in clock hour program2, R20C_1=Number of hours in clock hour program1)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S2B): 204
If S2B was between 1-38 then I19 was recoded as "1"

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| *2. | School | |
| 3. | I21A | (Imputed Academic Level) |
| 4. | S2C | (If no credit hours of instruction, # hrs. weekly) |
| 5. | IDOBYEAR | (Imputed Date of Birth (Year) ) |

*NO BREAK

Number imputed by Hotdeck imputations: 536

**POST ANALYSIS:**

TYPE OF ENROLLMENT

| | R19<br>Before Imputation | | I19<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 11886410 | 94.5 | 12005568 | 95.4 |
| 2 | 561187 | 4.5 | 565846 | 4.5 |
| 3 | 8330.01 | 0.1 | 8330.01 | 0.1 |
| 9 | 123817 | 1.0 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R20C_1 **IMPUTED VARIABLE NAME:** I20C_1
**DESCRIPTION:** # of Hours In Clock Hour Program1
**CASES ELIGIBLE FOR IMPUTATION:** All Clock/Contact Hour Students and both Credit and Clock/Contact Hour Students (I19=2 or 3) without valid values for R20c_1

| | |
|---|---|
| Number with valid responses: | 4,782 |
| Number eligible for imputation: | 429 |
| Number not eligible for imputation: | 54,675 |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S2C (If no credit, # hours of instruct weekly)
S2B (How many credit hours taken last fall)
R20C_1+R20C_2 with S2C

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S2C): 95

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| *2. | School | |
| 3. | I19 | (Imputed Clock or Credit Hours) |
| 4. | IDOBYEAR | (Imputed Date of Birth (Year) ) |
| 5. | ISEX | (Imputed Student Sex) |

*NO BREAK

Number imputed by Hotdeck imputations: 335

**POST ANALYSIS:**

# OF HOURS IN CLOCK HOUR PROGRAM1

| | R20C_1 Before Imputation | | I20C_1 After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| | 11886410 | | 2005568 | |
| 1 | 80.94 | 0.0 | 80.94 | 0.0 |
| 2 | 1929.88 | 0.3 | 1929.88 | 0.3 |
| 3 | 3570.18 | 0.5 | 3914.46 | 0.7 |
| 4 | 7080.59 | 1.0 | 7955.97 | 1.4 |
| 5 | 1390.57 | 0.2 | 1390.57 | 0.2 |
| 6 | 15612.7 | 2.3 | 16330.5 | 2.8 |
| 7 | 519.537 | 0.1 | 519.537 | 0.1 |
| 8 | 3369.05 | 0.5 | 3450.02 | 0.6 |
| 9 | 2084.64 | 0.3 | 2174.68 | 0.4 |
| 10 | 688.296 | 0.1 | 1188.79 | 0.2 |
| 11 | 864.72 | 0.1 | 1495.6 | 0.3 |
| 12 | 21647.1 | 3.1 | 22158.2 | 3.9 |
| 13 | 3743.25 | 0.5 | 3846.42 | 0.7 |
| 14 | 1856.36 | 0.3 | 2173.17 | 0.4 |

| | | | | |
|---|---|---|---|---|
| 15 | 19961.3 | 2.9 | 20474.2 | 3.6 |
| 16 | 7318.4 | 1.1 | 8201.59 | 1.4 |
| 17 | 217.07 | 0.0 | 307.117 | 0.1 |
| 18 | 6548.89 | 0.9 | 6719.97 | 1.2 |
| 19 | 2742.03 | 0.4 | 2742.03 | 0.5 |
| 20 | 51803.7 | 7.5 | 54863.5 | 9.6 |
| 21 | 70.234 | 0.0 | 70.234 | 0.0 |
| 22 | 1994.28 | 0.3 | 2259.2 | 0.4 |
| 23 | 2837.02 | 0.4 | 3020.98 | 0.5 |
| 24 | 15618.1 | 2.3 | 18238.6 | 3.2 |
| 25 | 68088.8 | 9.8 | 72604.7 | 12.6 |
| 26 | 4926.36 | 0.7 | 5110.35 | 0.9 |
| 27 | 2569.47 | 0.4 | 2569.47 | 0.4 |
| 28 | 4233.59 | 0.6 | 4314.54 | 0.8 |
| 29 | 2339.68 | 0.3 | 2390.97 | 0.4 |
| 30 | 174085 | 25.1 | 178295 | 31.1 |
| 32 | 2729.85 | 0.4 | 2990.02 | 0.5 |
| 33 | 2591.33 | 0.4 | 2753.27 | 0.5 |
| 34 | 891.967 | 0.1 | 891.967 | 0.2 |
| 35 | 15677.6 | 2.3 | 18093.7 | 3.2 |
| 36 | 309.323 | 0.0 | 802.298 | 0.1 |
| 37 | 5086.09 | 0.7 | 5332.64 | 0.9 |
| 38 | 1622.55 | 0.2 | 1622.55 | 0.3 |
| 39 | 2523.73 | 0.4 | 2616.59 | 0.5 |
| 40 | 70953.6 | 10.2 | 81814.4 | 14.2 |
| 44 | 749.141 | 0.1 | 749.141 | 0.1 |
| 45 | – | – | 309.006 | 0.1 |
| 46 | 66.552 | 0.0 | 124.217 | 0.0 |
| 47 | 33.561 | 0.0 | 33.561 | 0.0 |
| 49 | 1260.34 | 0.2 | 1350.36 | 0.2 |
| 50 | 1714.82 | 0.2 | 2430.76 | 0.4 |
| 53 | 357.01 | 0.1 | 357.01 | 0.1 |
| 58 | 80.963 | 0.0 | 80.963 | 0.0 |
| 60 | 729.284 | 0.1 | 729.284 | 0.1 |
| 65 | 303.044 | 0.0 | 303.044 | 0.1 |
| 99 | 155862 | 22.5 | – | – |
| TOTAL | 693334 | 100.0 | 574176 | 100.0 |

**VARIABLE NAME:** R22 **IMPUTED VARIABLE NAME:** I22
**DESCRIPTION:** Part-time or Full-time Student
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 57,225 |
| Number eligible for imputation: | 2,661 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

No Pre-analysis was performed

**DIRECT IMPUTATION:**

No direct imputation

**HOTDECK IMPUTATION:**

Sort by:

| | | |
|---|---|---|
| 1. | Stratum | |
| 2. | School | |
| *3. | I21B | (Imputed Credit Hours Earned) |
| 4. | S17BOX | (Were you working Fall '86) |
| 5. | I25A | (Dependency status) |
| 6. | I21A | (Imputed Academic Level) |

*NO BREAK

Number imputed by Hotdeck imputations: 2,661

**POST ANALYSIS:**

PART-TIME OR FULL-TIME STUDENT

| | R22<br>Before Imputation | | I22<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 7407719 | 58.9 | 7718417 | 61.4 |
| 2 | 4674711 | 37.2 | 4861327 | 38.6 |
| 9 | 497314 | 4.0 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R24 **IMPUTED VARIABLE NAME:** I24
**DESCRIPTION:** Marital Status
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 28,574 |
| Number eligible for imputation: | 31,312 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S78 (Marital Status)
S78 recoded into:
1 = other (excluding not specified)
2 = married
The Log Linear model: Marital = S63,S10,S79 (# of dependents),S75 (Sex), S74YEAR (Age) was run

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S78): 21,690

The following procedures were followed to directly impute I24 from variables in the Student Questionnaires:
If S78 = 1,4, or 5 then I24 = 3
If S78 = 2 then I24 = 1
If S78 = 3 then I24 = 2

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| *2. | I17 | (Imputed Local Residence) |
| 3. | IDOBYEAR | (Imputed Date of Birth (Year) ) |
| 4. | S79 | (# of Dependent Children: recoded as "No" = 0 or "Yes" = 1 to 8 children) |

*NO BREAK

Number imputed by Hotdeck imputations: 9,622

**POST ANALYSIS:**

MARITAL STATUS

| | R24<br>Before Imputation | | I24<br>After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 730670 | 5.8 | 3113759 | 24.8 |
| 2 | 95566.3 | 0.8 | 205499 | 1.6 |
| 3 | 3948581 | 31.4 | 9260487 | 73.6 |
| 9 | 7804927 | 62.0 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

**VARIABLE NAME:** R25 **IMPUTED VARIABLE NAME:** I25
**DESCRIPTION:** Updated Dependency Status

**CASES ELIGIBLE FOR IMPUTATION:**

| | |
|---|---|
| Number with valid responses: | 32,517 |
| Number eligible for imputation: | 27,369 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:

S40 (Where are you currently residing)
S88A85 (Live with parents for 6 wks or more in 85)
S88A86 (Live with parents for 6 wks or more in 86)
S88B85 (Number of wks live with parents in 1985)
S88B86 (Number of wks live with parents in 1986)
S88C85 (Parents provide >$750 support in 1985)
S88C86 (Parents provide >$750 support in 1986)
S88D85 (Parents claim as tax exemption in 1985)
S88D86 (Parents claim as tax exemption in 1986)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S88B86, S88D86): 21,653

If S88A85=1 or S88A86=1 or S88C85=1 or S88C86=1 or S88D85=1 or 3 or S88D86=1 or 3 then R25=1
If S88A85=2 and S88A86=2 and S88C85=2 and S88C86=2 and S88D85=2 and S88D86=2 then R25=2

**HOTDECK IMPUTATION:**

Sort variables:

| | | |
|---|---|---|
| 1. | Stratum | |
| *2. | School | |
| 3. | I24 | (Imputed Marital Status) |
| 4. | IDOBYEAR | (Imputed Date of Birth (Year) ) |
| 5. | ISEX | (Imputed Student Sex) |

*NO BREAK

Number imputed by Hotdeck imputations: 10,864

**POST ANALYSIS:**

UPDATED DEPENDENCY STATUS

| | *R25 | | I25A | |
|---|---|---|---|---|
| | Before Imputation | | After Imputation | |
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 2350050 | 18.7 | 7471358 | 59.4 |
| 2 | 1545771 | 12.3 | 5108386 | 40.6 |
| 9 | 8683923 | 69.0 | – | – |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

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*Initially there were 2 variables for dependency status, R25 and R25A (where R25A was an updated version of R25). A new dependency status variable NEWDEPEND was formed by taking the value of R25A if a valid (non-missing) value existed, otherwise the value for R25 was taken.

**VARIABLE NAME:** RHSDEGRE **IMPUTED VARIABLE NAME:** IHSDEGRE
**DESCRIPTION:** High School Degree or Equivalent
**CASES ELIGIBLE FOR IMPUTATION:** All cases without valid values

| | |
|---|---|
| Number with valid responses: | 32,240 |
| Number eligible for imputation: | 27,646 |
| Number not eligible for imputation: | N/A |
| TOTAL: | 59,886 |

**PRE-ANALYSIS:**

Cross-Tabulations were run on the following variables to determine the best predictors:
S83A (high school ed or =)

**DIRECT IMPUTATION:**

Number directly imputed from Student Questionnaire (S83A): 18,385
If S83A = 1 then IHSDEGRE = 1 If S83A = 2 then IHSDEGRE = 2 (Note that if S83A = 3 no direct imputation was performed)

**HOTDECK IMPUTATION:**

Sort by:

| | | |
|---|---|---|
| 1. | Stratum | |
| * 2. | School | |
| 3. | ISEX | (Imputed Student Sex) |
| 4. | I14 | (Imputed Race/Ethnicity) |

*NO BREAK

Number imputed by Hotdeck imputations: 9,261

**POST ANALYSIS:**

HIGH SCHOOL DEGREE OR EQUIVALENT

| | RHSDEGRE Before Imputation | | IHSDEGRE After Imputation | |
|---|---|---|---|---|
| VALUE | FREQUENCY | PERCENT | FREQUENCY | PERCENT |
| 1 | 7014220 | 55.8 | 11999508 | 95.4 |
| 2 | 346473 | 2.8 | 554754 | 4.4 |
| 3 | 23406.5 | 0.2 | 25482 | 0.2 |
| 9 | 5195644 | 41.3 | -- | -- |
| TOTAL | 12579744 | 100.0 | 12579744 | 100.0 |

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